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The international monetary outlook for the 1980s: no time for complacency

The 1970s have been characterized by many economic and financial disturbances, or *shokkus* as the Japanese call them. As the decade comes to a close there appears, however, to be a certain amount of complacency about the ability of the international monetary system to withstand future disturbances. This confidence stems from three factors: 1. the speed with which the world economy adjusted to the huge international payments imbalance that was created by the 1973-74 oil-price increases, 2. the smoothness with which the banks recycled funds from surplus to deficit countries, and 3. the continued preeminent role of the dollar as an international currency despite dollar devaluations and exchange market instability. The successful meeting of these tests indeed was remarkable and gratifying, but I believe that the world economy is likely to experience strains and stresses in the early part of the next decade that will necessitate some changes in international financial arrangements in order to preserve a reasonable degree of financial stability and economic growth.

The 1970s in retrospect

Certainly one of the most dramatic economic developments in the past decade was the highly *successful adjustment to the quadrupling of oil prices* in 1973-74. The immediate consequence of this increase was to raise the OPEC current account surplus after official transfers to $64 billion in 1974 from only $5 billion in 1973. The majority of analysts at the time were very pessimistic about the prospects for a reduction of the OPEC surplus in the remainder of the decade and about the future of the international monetary system in general. Instead of rising, the OPEC surplus declined rapidly in subsequent years, and by the end of 1978 it had virtually disappeared.

This quick adjustment mainly reflected the much-larger-than-expected absorptive capacity of OPEC members. During 1974-78 OPEC spent nearly $500 billion on imports of goods and services (excluding income paid to foreign investors), or roughly 75% of the $660 billion of OPEC receipts from exports of goods and services in the same pe-

*Speech delivered by Rimmer de Vries, Senior Vice President, Morgan Guaranty Trust Company, at a Board of Governors Meeting of the Atlantic Institute for International Affairs at Paris, France, December 8, 1979

Table 1

The OPEC current account surplus, 1978-80

in billions of dollars

	est. 1978	*est. 1979*	*proj. 1980*
Oil revenues	127	188	276c
Other exports	10	11	11
*Services exports*a	7	6	6
Total exports (1)	145	205	293
Merchandise imports	—99	—103	—134
*Services imports*a	—46	—51	—68
Total imports (2)	—144	—154	—202
Balance (1+2)	1	51	91
*Investment income, net*b	6	8	10
Current account	7	59	100
Official transfers, net	—6	—7	—10
Current account after transfers	1	52	90
Net external assets, end of period	162	214	304

Note: Components may not add to totals because of rounding

a excludes investment income, but includes private transfers

b excludes outflows of income on foreign direct investment in the oil sector, which are accounted for in oil revenues; the latter are calculated on the basis of "take" per barrel

c based on a $30-per barrel effective market oil price

riod. Import growth, which averaged nearly 38% per annum and 24% in real terms, was sustained at high rates throughout this period, particularly by countries (such as Saudi Arabia) that had erroneously been considered "low absorbers."

The OPEC surplus was further curbed by the slowing in the growth of oil consumption of the oil-importing nations. Total oil consumption of the non-Communist world increased at an average annual rate of little more than 1% during 1974-78 and even declined by nearly 3% in the 1974-75 recession years. Oil consumption picked up to about a 4% rate in 1976-78, but this was almost entirely offset by rising oil output from non-OPEC sources — mainly the North Sea, Mexico, and Alaska. As a result, demand for OPEC oil was virtually unchanged during 1975-78, and oil prices increased by an average of less than 4% per annum in nominal terms. This rate was less than half the average annual increase in OPEC import prices, so that by the end of 1978 the terms of trade of OPEC were nearly 25% below the 1974 average.

This easy oil-market situation did not last long. The revolution in Iran led to a suspension of its oil exports in late 1978 and early 1979 and ultimately to a new lower production level that is less than two-thirds the former rate. The events in Iran, coupled with fears of supply disruptions elsewhere in the Middle East, transformed the world oil situation from a buyers' to a sellers' market and pushed up oil prices. The effective oil price, including spot transactions, is now about $24 per barrel, up by nearly 80% from the end of 1978 (some sources even put the effective oil price as high as $26-$27 per barrel). As a result of this and the sharp decline in Iranian imports, the OPEC current account surplus after transfers is estimated to exceed $50 billion in 1979 (see Table 1).

Despite the sudden emergence of a new international payments imbalance, it seems that most analysts are much less concerned today than they were six years ago. This reflects, in part, the fact that even though the *absolute* increase in oil prices is greater this year than in 1973-74, the percentage change (both in nominal and in real terms) is much smaller. Moreover, the 1979 OPEC current account surplus, in 1974 dollars, is still only about half of that of 1974. Finally, there is confidence, based mainly on OPEC's remarkable absorptive capacity, that the new global payments imbalances can be reduced quickly and smoothly, just as they were following 1974-75.

Another key development of the decade was the very *rapid growth of international bank lending.* External lending by commercial banks in the principal industrial countries, net of interbank transfers, is estimated to have risen from approximately $170 billion at end-1973 to about $640 billion at end-September 1979, or nearly a fourfold increase in less than six years. This rapid growth not only reflected the large balance-of-payments financing requirements during this period but also the desire to build up international reserves. Total central bank deposits in the Euro-market, for example, more than tripled from $40 billion at the end of 1973 to $130 billion in mid-1979, and accounted for about 40% of the increase in non-bank deposits.

The important role that commercial banks played in the recycling process is further illustrated by the dramatic rise of bank exposure to the non-OPEC developing countries. BIS-reported bank claims of these countries increased from about $35 billion at end-1974 to an estimated $150 billion as of the end of this year. At present, banks provide almost two thirds of the "net" exter-

Table 2

Non-OPEC LDCs and commercial bank financing

in billions of dollars

	1974	1975	1976	1977	1978	est. 1979	proj. 1980
Current account deficit, before official transfers	—29.1	—36.9	—25.9	—23.1	—30.5	—45.5	—60
Financing unrelated to external debt	8.3	7.4	6.0	9.3	9.1	10.7	13
Official transfers	5.4	5.9	5.2	5.7	6.8	7.7	9
Direct investment, net	3.7	4.4	4.2	4.0	4.8	5.5	7
Other	—0.8	—2.9	—3.4	—0.4	—2.5	—2.5	—3
Change in gross international reserves (— = increase)	—2.5	2.0	—11.2	—11.1	—14.2	—5.0	5
Net amount to be financed[a]	23.3	27.5	31.2	24.9	35.6	39.8	42
Official sources	8.3	10.2	8.7	10.0	11.0	12.0	13
IMF and reserve-related credit facilities	1.4	1.6	3.1	—0.8	—0.3	0.3	1
Suppliers credits	0.5	0.8	1.3	1.2	1.5	2.0	3
All other, including commercial banks	13.1	14.9	18.0	14.5	23.4	25.5	25
Memo:							
BIS-reported bank claims on non-OPEC LDCs, year-end level	33.5	60.0	78.8	98.7	121.7	150	183
Annual change	n.a.	26.5	18.8	19.9	23.0	28.3	28

a Equals current account less financing unrelated to external debt and changes in international reserves.

nal financing requirements of the non-OPEC LDCs versus less than one third in the early seventies (see Table 2). In comparison, the IMF has played a much smaller role in financing the LDC deficits, and the use of IMF credit has constituted only about 3% of the LDC financing requirements since 1974.

Indeed, the policy concerns relating to international finance in the latter part of the decade are quite different from those immediately following the 1973-74 oil-price hike. At that time the principal concern was whether there would be a sufficient volume of international finance to permit an orderly, gradual adjustment to the higher oil prices. In contrast, by the latter part of the decade the principal issue debated is whether access to balance-of-payments financing has become too easy. By 1979 the intense competition among commercial banks in their international lending operations has driven LIBOR spreads to as low as one half of 1% for a few developing countries. Furthermore, although the IMF has lent to a large number of countries, many of these credits have been unconditional. Only a few countries have been willing to accept Fund conditionality.

Turning to the *dollar's role in the international monetary system*, there is no doubt that its image as a strong currency has been tarnished by the first two dollar devaluations and the subsequent periodic bouts of dollar weakness, particularly in 1977-78. The prestige of the mark, the Swiss franc, and the yen at the same time has been enhanced by the appreciation of their currencies — 210%, 270%, and 45%, respectively, against the dollar since the start of the decade. Yet, despite these very large exchange rate changes and the increasing importance of Germany and Japan in the world economy, the dollar's role as the principal international reserve currency has remained remarkably intact. The proportion of official foreign exchange holdings held in the form of U.S. dollars has fluctuated in a narrow range — between 75% and 80% — throughout the decade.

While the heavy reliance on the dollar as a reserve asset in part reflects the highly developed financial system in the United States and the dollar's importance as a vehicle currency, the reluctance of the authorities in Germany, Japan, and other countries to expand the role of their currencies has also been a factor. The authorities in those countries remain concerned about the implications for their money supplies of increased use of their currencies as international reserve assets. This view is reflected in a recent Bundesbank report, which asserts that the emergence of a multiple-currency reserve system

would be highly unstable, that the dollar is the only "natural" reserve currency, and that all other currencies such as the German mark are essentially "ersatz" or imitation reserve currencies. Therefore, the Bundesbank study concludes, there is no alternative but to restore the credibility of the dollar as the leading reserve currency.

The OPEC surplus in the early 1980s

Turning now to the outlook, the confident feeling that the OPEC surplus will decline after 1980 just as sharply as after 1974 has to be questioned. While the 1974 oil price shock (and the resulting current account imbalance) was much more severe than the present one, it was a one-time event. By contrast, the current situation may turn out to be only the beginning of a long period of rising real oil prices.

The key factor behind this grim outlook is the oil-supply situation. Unlike the 1974-79 period, the prospects are for only limited oil-supply growth in the future. Almost all of this marginal increase is likely to come from non-OPEC sources, while by 1985 OPEC exports may not exceed the present level of nearly 29 million bpd. Contributing to this prospect are the permanent loss of at least 2 million bpd of Iranian oil production; the scaling down of Saudi Arabia's plans for oil production capacity expansion; and the growing desire of most other OPEC members, and of certain key non-OPEC oil producers as well, to conserve their oil resources and to tailor the rate of their oil output and exports to the pace of domestic economic development. Furthermore, even though sluggish oil market conditions may develop occasionally in the future, these are likely to be only temporary breaks in a long-term tight oil-supply situation that will not lead to lower oil prices. Unlike the past, there appears to be a resolve among OPEC producers to contain their oil production close to a level that will prevent another erosion of their purchasing power.

Although new oil discoveries will undoubtedly be made in the coming decade, they are not likely to have a major impact on the oil-supply situation in the early 1980s because of the time required to bring new fields into production. For the same reason, as well as significant cost, technological, environmental, and political constraints, non-oil energy sources are unlikely to make a substantial contribution to additional energy supplies in the next five to ten years. Finally, there is the prospect of unexpected oil-supply interruptions in the 1980s due to political changes in the Middle East and elsewhere. This appears even more likely in the decade ahead in view of the significant social and economic changes that the very rapid development of the recent years has brought about in OPEC countries.

In the face of this oil-supply outlook, oil prices are likely to continue to rise in real terms. This implies a long-term shift in the terms of trade in favor of OPEC, in contrast with what occurred after 1974. The *magnitude* of the real oil-price rises, and the resulting increases in OPEC oil revenues and current account surpluses, will depend to a large extent on the reaction and policies of the major oil-consuming countries toward recent events and the tight oil-supply outlook. Preemptive efforts by industrial countries to contain their oil demand through large increases in their *domestic* oil prices, greater incentives for investment in conservation, limits on oil imports, and other measures could contain the growth

Table 3

OPEC surplus and net external assets 1981-85

based on alternative assumptions

	Scenarios			
	I	II	III	IV
Assumptions				
average % change per annum 1981-85				
OPEC terms of trade	0	3.8	5.0	8.0
Nominal oil price[a]	8.0	12.0	15.0	21.0
OPEC import prices	8.0	8.0	9.6	12.0
OPEC import volume	8.0	9.8	11.2	12.4
OPEC oil export volume[b]	1.2	1.2	1.2	—0.8
Current account after transfers				
in billions of dollars				
1981	78	82	83	92
1982	72	70	83	95
1983	60	65	83	98
1984	46	67	80	99
1985	24	68	69	89
Net external assets				
in billions of dollars				
1981	381	385	386	395
1982	453	455	469	490
1983	513	520	552	588
1984	559	587	632	687
1985	583	655	701	776

a growth from 1980 effective oil price which is assumed at $30 per barrel

b growth in export volume as measured from 1980; from 1979 the growth rate is zero under scenarios I-III, and the decline is almost 2% under scenario IV

c net official transfers are assumed to rise from $10 billion in 1980 to $12 billion in 1985 under scenario I, to $20 billion in 1985 under scenarios II and III, and to $25 billion in 1985 under scenario IV

of real *world* oil prices. In the absence of such efforts, and with the continuation of present inadequate energy policies, oil demand will be curbed through substantially higher world oil prices and much slower rates of economic growth. This would also result in much greater and persistent current account imbalances, as future OPEC imports are not likely to expand at the high rates of the immediate post-1974 period. Governments in both low- and high-population OPEC countries have come to realize that economic development is a long-term process and that a too rapid rate of growth in spending may have undesirable social and political consequences. This change in view has been strengthened by the political upheaval in Iran. Thus, while OPEC imports should continue to grow, their *rate* of increase may not be adequate to offset the projected sharp rise in oil prices and oil revenues. As a result, a sharp reduction in the OPEC current account surplus comparable to that of 1975-1978 is unlikely, particularly in the next few years.

Experiments with a number of plausible scenarios for oil prices and OPEC import volume suggest that the OPEC surplus during the next two to three years will remain high, perhaps averaging at least $70 billion per year (see Table 3). Indeed, even under the most optimistic scenario of no further increase in oil prices in *real* terms beyond 1980, the OPEC surplus may not fall below the 1979 level of $50 billion until 1984. The implications of these projections are that OPEC *net* external assets (i.e., gross government and private external assets minus their external obligations) will continue to grow substantially in the coming years: from $160 billion at the beginning of this year they could rise to $300 billion by the end of 1980 and to over $500 billion by end-1983.

The medium-run international payments outlook

There is also no reason to be overconfident about the medium-run outlook for the international payments balance. At the moment the current reemergence of the large OPEC surplus has coincided with a narrowing of the imbalances among other countries. Indeed, the global external payments imbalance, as measured by the sum of individual country current account deficits, will not widen this year by the full extent of the $50 billion increase in OPEC's surplus. This is likely to be

Real effective exchange rates

monthly averages,
index, March 1973=100

Latest plotting December 11

the case again in 1980. Thus, even though the OPEC surplus could increase by some $90 billion between 1978 and 1980, the sum of current account deficits in the world may rise by only about $50 billion.[1]

This favorable situation may well begin to change after 1980. Not only will the OPEC surplus remain very large for a number of years, as noted, but there also is reason to believe that the payments imbalances among major industrial countries will begin to widen again. The shrinkage in the U.S. current account deficit over the past year and a half, despite a sharply higher oil import bill, has been brought about in large part by cyclical forces — the U.S. slowdown and an acceleration of economic activity in Europe and Japan — and to a lesser extent by the lagged effects of real dollar depreciation in 1977-78. When the U.S. economy turns up again and growth slows elsewhere, it is possible that the U.S. current account position could deteriorate substantially, especially now that much of the dollar's real effective depreciation of 1977-78 has been reversed (see chart). In regard to Japan, the rapid expansion of domestic demand is unlikely to continue much longer, and perhaps even more important the 30% real effective appreciation of the yen in 1977-78 has now been more than reversed, leaving Japanese industry highly competitive. Germany does not appear to relish the prospect of a sizable further deterioration in its current account position, even though the possibility of a continuation of large OPEC surpluses suggests that this might be appropriate.

The outlook for a renewed widening of external payments imbalances, especially among the industrial countries, obviously has important implications for exchange rate instability, reserve diversification, and the role of the dollar.

Constraints on international bank lending

The prospects of continued large OPEC surpluses, widening payments imbalances among industrial countries, and large increases in the current account deficits of the non-OPEC LDCs imply a substantial rise in the demand for balance-of-payments financing in 1980 and the years beyond. With balance-of-payments financing needs escalating again, will the banks be able to satisfy most of the demand?

There is no room for complacency in this regard just because the banks handled the job so well during the 1970s. There are several factors that are likely to limit the capacity of the banks to provide balance-of-payments financing during the 1980s. One of the constraints facing the banks is concern about *the adequacy of their capital.*[2] U.S. banks, for example, have experienced a considerable decline in their capital/asset ratios. By the end of September of this year, the ratio of equity capital to total assets for U.S. money-center banks had fallen to 3.5% from 4.5% at the end of 1972. This decline, which continued a trend that prevailed since the early 1960s, accelerated in the 1970s, a period of rapid expansion in international lending. Large U.S. banks' international lending grew

1 This experience contrasts with that of 1973-74, when the widening of international payments imbalances was nearly equal to the increase in OPEC's current account surplus. It also contrasts with the 1974-78 experience when, despite the virtual elimination of the OPEC surplus, the sum of individual-country current account deficits failed to diminish because of a significant widening of payments imbalances among non-OPEC nations, especially the industrial countries. For example, the U.S. current account, after moving into a surplus of $18 billion in 1975 in the midst of a deep recession, swung into deficit of $14 billion in 1977 and again in 1978, while the current accounts of Japan, Germany, several other countries moved into large surplus.

2 While there are no absolute standards in this field, investors, depositors, and regulators implicitly or explicitly impose their own judgments and relative standards about what constitutes a sufficient amount of capital to maintain confidence in, and to assure the smooth functioning of, banks.

much more rapidly than their domestic assets, especially in the years up to 1977. As a result, the foreign assets of large U.S. banks as a proportion of their total assets, on a consolidated basis, have risen from only about 11% at the beginning of the 1970s to about 33% at present, and for several money-center banks the proportion now exceeds 50%.

The growth of bank capital has not kept pace with asset growth in part because the competitive pressures on bank margins — especially for international lending in recent years — have slowed the growth of bank earnings and thus have limited their ability to generate capital internally. U.S. banks also have not been favorably disposed to raise equity capital externally by stock issuance since the shares of many banks are priced at or below book value and because the modest price/earnings ratios accorded to many bank stocks by the market imply a very high cost of capital.

Another constraint on the banks' capacity to finance balance-of-payments deficits is the concern about the *concentration of portfolio risk.* Prudent banking requires banks to spread risks by limiting their exposure to any one borrower or country. In the United States, this notion is embodied in legal lending limits and in the regulatory approach to bank examination, as well as in management practice. The large increase in international bank lending to finance balance-of-payments deficits (directly or indirectly) since 1973 has tended to be quite heavily concentrated in a relatively limited number of countries. As a consequence, banks' international assets have become rather concentrated. For example, by mid-1979 U.S. banks' claims on only seven[3] developing countries accounted for about 45% of their total claims on foreign countries other than the Group of Ten plus Switzerland and the offshore banking centers. Moreover, many of the same countries in which banks' international assets are currently concentrated are likely to be the ones whose balance-of-payments financing requirements may grow significantly during the next few years. For example, if banks were to continue to account for the same large share of financing that has characterized recent years, bank credit exposure to major non-OPEC LDC borrowers would have to grow by approximately 20% per annum to meet all projected balance-of-payments financing requirements. This is likely to be faster than the overall growth of the banks' balance sheets. Thus, the need for portfolio diversification and risk dispersion probably will constrain the banks' capacity to meet some countries' potential financing requirements.

These various constraints on the expansion of banks' international lending have to some extent already contributed to a slowing in the growth of the U.S. banks' international lending. On a consolidated balance sheet basis, U.S. banks' claims on foreigners have increased at an average annual rate of only about 13% since the end of 1976, in contrast to an average annual rate of more than 31% during 1970-76.

While most of the examples in this discussion have centered on U.S. banks, the same concerns apply to the banks of other major industrial countries. Because of differences in accounting practices and in the extent of balance sheet consolidation among countries, it is difficult to make international comparisons of the capital/asset ratios of large banks. Nevertheless, many banks in other countries have much lower ratios than U.S. banks, and they also have experienced de-

[3] Argentina, Brazil, Korea, Mexico, Philippines, Taiwan, and Venezuela

clines in their equity capital/asset ratios in recent years. Bank supervisory officials in other countries, in conjunction with concerns about the prudential aspects of rapid growth of the Euro-currency market, are beginning to require banks to report their balance sheets on a fully consolidated basis and to examine more closely the adequacy of bank capital on this basis. Concerns about portfolio concentration also are being widely expressed by bank managements and supervisory officials in other countries.

When U.S. banks slowed the pace of their international lending growth a couple of years ago, banks based in other countries such as Germany, France, Canada, and Japan stepped up their international lending, which helped to sustain the overall rate of growth of international bank credit at about 25% per annum. Now, however, banks in some of these countries are also showing indications of slackening their pace of lending. Japanese banks, in particular, have virtually withdrawn recently from the medium-term syndicated loan market. While this action apparently is in response to official directives, these in turn were partly motivated by concerns about excessive growth of international lending and portfolio concentration, as well as by balance-of-payments and exchange-rate considerations.

In recent weeks there also have been some indications in the Euro-currency credit market of a tightening of lending terms. There have been several instances of a shortening of maturities for new credits from what had been the prevailing tenor. While the spreads between LIBOR and lending rates have yet to show any major signs of widening, there have been increases in front-end fees for several new credits, and there are indications that spreads may soon begin to reflect differences in credit quality to a greater extent than heretofore. Moreover, given that many countries are facing the need for substantial amounts of new money, there may be fewer refinancings of outstanding credits for the purpose of securing better terms.

Thus, there are already a number of signs that the availability of international bank credit for financing balance-of-payments deficits is tightening. There certainly can be no assurance that the 25% annual rate of growth of international bank credit that prevailed during the 1970s will be sustained, or in particular, that the even more rapid expansion of bank credit to some of the largest borrowers during the 1970s will continue. This implies that, while banks will continue to play an important role in intermediating OPEC surpluses and in financing balance-of-payments deficits during the 1980s, their share will and should diminish.

New directions

This analysis points to the need for new initiatives to maintain the flow of international lending at a level consistent with noninflationary growth and to foster exchange market stability.

With regard to the first, other sources of financing will have to be developed to supplement the banks. Nonbank financial institutions based in the major industrial countries, notably insurance companies and pension funds, have increasingly begun to lend and invest across national borders in recent years. This has been a fairly gradual development, and while international lending and investing by such institutions will probably accelerate in the years ahead, it is difficult to envisage institutional investor flows becoming a major source of bal-

ance-of-payments financing in the medium term. Moreover, most of these institutional credit flows will be directed to a fairly limited number of industrial countries, especially those with relatively well-developed capital markets and/or the highest credit rankings.

With the OPEC surpluses again becoming sizable, their own official aid organizations now established, and their private financial institutions better developed, OPEC countries could, and should, make a greater contribution by lending and investing a large share of their surpluses directly in deficit countries. They should begin to assume a larger part of the credit risks themselves rather than channeling such a major portion through intermediaries and capital markets in the major industrial countries. Between the end of 1973 and mid-1979, OPEC countries increased their deposits in banks in the major industrial countries by about $70 billion, representing more than 40% of their cumulative current account surplus during this period. With OPEC external assets projected to build up rapidly in the next few years, continued efforts by OPEC countries to place a very large share of the increase in their funds in the banks could present the latter with problems of undesirable concentrations on the deposit side of their balance sheets.

The IMF also is in a position to become a much more important source of balance-of-payments financing. The Fund now has about $30 billion for lending to member countries, and this will be augmented substantially when the 50% increase in quotas agreed to under the Seventh General Review of Quotas becomes effective, probably sometime next year. Fund assistance is now available in substantially larger amounts and for longer periods to individual country borrowers than was the case earlier in the 1970s. Deficit countries have heretofore been reluctant to submit to Fund conditionality, but the increased scale of international payments imbalances and constraints on the availability of bank credit — reflecting concerns discussed earlier as well as the tightening of monetary policies in a number of industrial countries — may lead to increased use of Fund resources.

New initiatives also are needed to protect the exchange markets from the disturbing influence of official reserve diversification. Exchange market unrest in the past two years has brought an abrupt recognition that the evolution of a multi-currency reserve system is today's reality, not an avoidable development that somehow can be deferred indefinitely. Although the share of the dollar in official reserve holdings has remained at around 75%-80%, the importance of the new reserve currencies, such as the German mark and the Swiss franc, in official portfolios of developing countries (including OPEC) and of the smaller industrial nations is much greater than these global figures might suggest, since the G-10 industrial countries continue to maintain the overwhelming proportion of their own exchange reserves in dollars. Diversification stems from the desire for stability of investment returns in relation to the multi-currency patterns of imports and debt obligations of the asset holders and from the desire for higher average returns than dollar holdings have provided in recent years relative to the performance of alternative currency assets.

The feasibility of large-scale reserve diversification has been constrained by the limited availability of suitable investment media denominated in the new reserve currencies and by restrictions on access to the domestic financial mar-

kets of most G-10 countries. These impediments have compelled asset holders to accept negative real returns from dollar investments or have forced them into the Euromarkets.

To date the response of major industrial countries is hardly commensurate with the magnitude of financial flows to be managed and recycled as a result of the new OPEC surplus. As noted, OPEC assets may double over the next few years and may climb to over $500 billion by 1983. The currency disposition of these assets will have a major bearing on exchange market sentiment and could have a severely disruptive impact on exchange rates unless wisely handled.

All the major countries, and especially those whose currencies have acquired appeal as investment alternatives to the dollar, have an interest in maintaining a smooth-functioning international financial system in which monetary management and exchange rates are guided by fundamental economic forces. Portfolio diversification, it should be stressed, will occur because it is a legitimate objective of major asset holders. Without policy initiatives the consequences are only too likely to be greater exchange rate volatility, weakening of domestic monetary control in the reserve center countries, and distortion of appropriate balance-of-payments adjustment policies.

The magnitudes of potential asset shifts outweigh the stabilizing contribution to be expected from the proposed IMF reserve substitution account. The proposal has attracted academic as well as some political support as a means to shield exchange markets from diversification pressures and to revive a dormant goal of international monetary reform that would make the SDR the world's principal reserve asset. Despite this desire to work toward a single new international asset — rather than a proliferation of national currency reserve assets — it is far from clear that a Substitution Account SDR can be devised that will have universal and compelling appeal to prospective central bank participants. It is unlikely to ward off continued diversification through exchange markets, especially on the part of central banks outside the G-10 countries. Further limiting its usefulness in meeting the challenge of the 1980s is the difficulty of negotiating and ratifying a complex intergovernmental agreement in a short span of time. And once a plan goes into effect, building confidence in the Substitution Account SDRs will still be a very slow process.

This is not to say that a substitution exercise is without merit. Eventually the world may be ready to unify and centralize reserve creation and management, but this can hardly come to pass in the foreseeable future. It is worthwhile thinking and building to that future, but immediate dangers call for speedier solutions. Perhaps the greatest value of the substitution account discussions has been in pinpointing problems and opening ways to practical approaches.

Much of the SDR substitution plan's intended benefit as a mechanism for containing diversification pressures on exchange markets can be achieved more simply and flexibly by unbundling the SDR's rigid formula valuation in terms of national currencies. Instead of offering diversifiers an asset alternative to the dollar that is internationally sanctioned but has arbitrary valuation and yield characteristics as well as questionable liquidity, it appears more promising and consistent with the reality of a multicurrency system to offer directly the desired national currencies through off-market techniques. For example,

official demand for German marks could be accommodated by Bundesbank issuance of special mark-denominated securities of various maturities to diversifying central banks in exchange for dollars. The exchange would be conducted directly on the books of the central banks with no involvement or distortion of ordinary foreign exchange market transactions. The terms of such off-market transactions would have to be negotiated. To be mutually acceptable to the participants the terms would need to correspond closely to prevailing market indications for instruments of similar maturity. However, it may well be desirable to limit the marketability of the special securities, for which there is some precedent from the 1960s in the Roosa bond placements and other foreign-series U.S. Treasury issues of that period.

If such special securities are offered by most G-10 central banks the resulting array of reserve diversification options would accomodate not only diversifiers who seek assets resembling the IMF SDR as to capital value and stability, but also diversifiers for whom the IMF SDR is less suited. Moreover, G-10 members would still have a choice between offering the special securities or managing their exchange markets by other means. Thus, national preferences would be respected and all parties would gain a flexibility that is absent in the IMF substitution proposal. The special security approach could be implemented quickly, allowing reserve substitution to proceed in a nondisruptive way rather than being frustrated by the complexities and rigidities of negotiating a multilateral arrangement. In this way there is some hope of channeling the coming decade's diversification pressures sensitively and on a scale commensurate with the explosive growth in investment portfolios of some reserve holders.

The objective in all this, it should be emphasized, is not to divert all diversification activity from the markets, but only the portion that may be disruptive or inconsistent with fundamental considerations. For example, the investment of a part of the OPEC surplus in currencies other than the dollar is not necessarily destabilizing. The acquisition of dollars by oil-importing countries to meet their oil import bills tends to strengthen the dollar. This strengthening is to some extent offset by OPEC diversification away from the dollar.

The approach advanced here implies a deliberate acceptance of a multi-currency reserve system, for the time being at least. To many observers this appears a realistic reading of world financial developments, even if it is not an especially welcome view. It is interesting to note that the Swiss authorities are presently contemplating the offer of Swiss franc facilities to central banks. But some countries remain quite adverse to any encouragement of reserve function for their own currencies.

Those that are opposed have voiced several objections. First, it is argued that domestic liquidity management would be undermined by unpredictable inflows and outflows of funds from abroad on a scale that may overwhelm the limited capacities of domestic financial markets. This indeed can be the consequence of currency inflows through exchange markets, but, of course, it is avoided by the special off-market security approach outlined above. Nor are the results inflationary: the currency flows are effectively sterilized in terms of the domestic consequences to the new reserve centers if isolated on the books of their central banks. Dollars exchanged for the special securities are not extinguished. They

are placed in the United States, most likely in government securities, by these central banks. Clearly, neither the substitution account nor the special securities approach should in any way lessen U.S. responsibility to conduct a prudent monetary policy.

Another objection to the reserve currency function is the perception that reserve centers tend to experience unfavorable economic consequences, such as slower economic growth or loss of industrial competitiveness, as a result of exchange rate and interest rate policies designed to buttress external confidence. If these contentions as to the burden of a reserve currency role have merit, the implication ought to be that the world's major economic powers should share the burden and responsibility more equitably than has been the case since World War II. While the United States remains the leading national economy, its dominance by now is much reduced, and it may rightly expect other major countries to assume an international financial responsibility befitting their economic weight.

A further objection to reserve status is the risk of a negative total rate of return to the reserve center inherent in issuing domestic-currency liabilities to foreign central banks against acquisition of dollar assets. However, the rate of return risk incurred by a reserve center is not of the same character that an investor sustains on a multi-currency asset portfolio. For a reserve center the relationship between rates of return on domestic and foreign currency is at least partially within the control of the central bank, and any difference is thus to some extent a cost or benefit of the country's own policies. Exchange gains or losses and net interest receipts or payments affect the central bank's balance sheet and earnings, but it is doubtful whether these accounting implications have economic significance. The special security approach to accommodating diversifications flows has an advantage over the IMF substitution proposal by putting the exchange and rate of return risks directly on the responsible reserve centers. By comparison, the risks implicit in the multilateral IMF substitution proposal are difficult to assign equitably among the participants.

Beyond their potential value in accommodating currency preferences with minimal disruption to exchange markets, off-market diversification facilities also offer an opportunity to improve world-macroeconomic management by lessening the tendency of central banks outside the G-10 countries to place funds in the Euro-markets. This would dampen the supply of international credit — the easy availability of which has at times underwritten inflationary policies. Sterilizing a portion of the OPEC surplus through the special security offerings by reserve centers could be helpful in working down world inflation.

By diverting funds from the Euro-markets there is, of course, the possibility that conditions in these markets will tighten and that some borrowing countries may be forced to adjust more quickly than is desirable. To forestall this result, the proceeds of the special securities could be used, as needed, to bolster IMF resources, perhaps through some arrangement akin to the General Arrangements to Borrow (GAB). In this way the off-market diversification facilities could enhance the Fund's ability to assert effective oversight of countries in balance-of-payments adjustment difficulties.

In summary, greater direct lending by OPEC surplus countries to nations in deficit, the IMF substitution account, and the provision of

off-market diversification facilities, all can play a useful role in lessening the economic and financial risks overshadowing the next few years. The benefits include a potential for greater stability of exchange markets, creating thereby a more orderly external setting for the major countries in which to pursue prudent domestic policies. By diverting official investments from the markets the expansion of international liquidity may be better contained and could have less inflationary results. The mere existence of facilities complementing private international financial markets will be valuable in maintaining confidence and in averting strains on financial markets such as those associated with bank capital adequacy. Furthermore, the greater use of official channels in recycling international payments surpluses will be useful in fostering appropriate balance-of-payments adjustment policies.

Statistical appendix

for key to data in tables see pages 22 and 23

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1978																
December	97.5	83.4	129.6	68.8	135.0	90.3	55.2	111.2	119.2	168.3	116.9	102.0	102.4	87.4	74.5	73.0
1979																
January	97.5	82.6	127.9	68.8	135.5	90.8	55.0	111.8	120.0	166.7	117.4	103.2	102.2	87.0	74.3	73.4
February	98.1	82.2	126.4	69.0	135.6	90.4	54.9	111.9	119.9	166.9	117.4	103.3	101.9	87.0	74.1	74.4
March	97.9	83.8	122.7	70.4	135.5	90.2	54.9	111.4	119.9	166.5	117.2	102.4	102.1	87.1	73.8	74.9
April	98.3	86.0	117.4	72.5	134.5	89.8	55.5	110.5	118.9	164.8	116.5	101.7	102.2	87.5	74.0	76.8
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.1	83.6	102.8	72.8	139.7	90.7	54.4	110.8	118.3	166.3	121.4	98.4	102.0	88.3	74.7	76.7
2	100.3	83.3	106.4	71.2	138.8	90.5	54.7	110.9	118.2	166.3	121.0	98.3	103.1	88.7	75.0	77.5
9	100.5	83.2	104.7	71.5	139.0	90.4	54.7	111.0	118.4	167.2	121.4	98.5	102.6	88.6	74.9	77.1
16	100.6	83.4	102.2	72.9	139.4	90.6	54.5	110.7	118.2	166.0	121.2	98.5	101.9	88.2	74.8	76.9
23	100.0	83.8	101.2	73.8	139.9	90.8	54.3	110.9	118.0	165.2	121.4	98.9	101.6	88.2	74.6	76.6
30	99.8	84.1	100.1	73.5	140.6	91.1	54.1	110.7	118.6	165.5	121.9	97.9	101.6	88.1	74.6	76.1
December 7	99.0	84.4	101.7	73.5	140.4	91.0	54.3	110.5	119.4	168.2	121.7	95.0	101.7	88.1	74.3	75.7

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1975	98.6	102.5	87.9	104.3	100.4	102.6	97.7	98.0	100.0	106.4	103.5	95.6	96.9	106.3	100.8	106.8
1976	100.1	106.7	89.0	96.6	101.2	100.0	92.6	97.9	101.8	110.8	106.1	96.1	99.0	109.0	101.6	105.0
1977	99.8	99.8	94.7	101.5	102.5	96.1	95.5	99.7	103.8	105.2	109.2	97.3	99.7	105.1	91.6	100.7
1978	95.2	92.8	108.8	106.3	103.3	96.7	93.8	99.6	103.6	121.7	109.2	103.5	95.4	96.5	86.9	96.9
1978																
December	94.6	90.1	109.8	107.2	105.2	97.3	92.0	99.6	103.1	120.3	108.7	104.7	93.9	96.0	85.5	100.9
1979																
January	94.4	90.5	107.7	107.8	104.8	98.5	92.4	99.7	103.7	118.0	109.6	105.3	92.8	95.9	85.4	101.3
February	94.6	91.0	106.2	108.7	104.6	98.3	92.3	99.4	103.4	118.2	109.1	103.4	91.7	97.5	85.8	103.0
March	94.3	92.8	103.2	111.2	104.6	98.3	92.4	98.8	102.7	117.6	108.2	103.5	91.7	97.4	85.7	105.0
April	94.7	95.5	98.6	115.6	103.4	98.1	93.7	97.7	101.6	115.7	107.1	101.8	92.1	97.8	85.6	108.8
May	95.7	94.6	98.1	116.5	103.4	98.0	93.7	96.7	100.5	115.2	106.4	99.8	91.8	99.3	84.2	113.2
June	96.0	92.7	97.7	119.9	103.7	98.2	93.1	96.3	99.5	116.8	106.1	98.7	90.4	100.1	83.8	112.3
July	94.3	92.5	97.8	127.6	103.8	98.2	93.1	96.7	98.1	115.6	106.3	100.2	88.2	99.9	83.2	110.5
August	94.6	92.1	97.7	126.7	103.3	98.5	94.1	95.9	99.0	113.7	106.3	101.8	88.3	100.6	84.5	110.9
September	94.5	92.9	95.9	123.5	103.9	99.9	94.6	95.8	98.7	115.1	108.1	103.8	88.9	100.2	83.4	110.6
October	96.7	91.8	92.7	121.2	104.1	99.6	94.3	96.5	98.0	113.0	108.9	103.3	89.8	100.1	83.2	111.1
November	97.6	91.7	88.2	120.5	105.0	100.9	93.8	96.3	97.9	111.6	109.3	105.3	88.3	100.6	83.0	111.4

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976r	1977r	1978r	1979		
									Mar	Jun	Sepr
Estimated size											
Gross	145	200	305	375	460	565	695	895	895	965	1070
Liabilities to nonbanks	30	35	55	75	80	100	125	170	185	200	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	125	130	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	585	635	n.a.
Net	85	110	160	215	250	310	380	485	500	530	600
Claims on nonbanks	35	45	65	100	115	150	195	245	255	265	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	200	220	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	45	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	74	73	n.a.

a includes unallocated liabilities
b includes unallocated claims
c in European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Euro-dollar:											
overnight	4.63	7.12	10.62	10.12	10.00	10.37	10.75	11.25	11.75	14.25	12.87
7-day fixed	4.75	6.31	10.62	10.12	10.12	10.50	10.87	11.37	11.87	14.37	13.00
one month	5.13	6.87	11.00	10.44	10.25	10.61	10.94	11.75	13.00	15.06	13.56
three months	5.00	7.19	11.69	10.75	10.44	10.50	11.31	12.12	12.75	15.69	14.00
six months	5.38	7.50	12.31	11.06	10.62	10.50	11.12	12.12	12.75	15.31	13.94
twelve months	5.56	7.67	12.00	10.87	10.44	10.19	10.81	11.69	12.19	14.25	12.87
Euro-mark:											
one month	4.62	2.19	3.19	5.12	5.62	6.12	6.19	7.25	7.19	8.12	9.12
three months	4.69	2.50	3.31	5.44	6.12	6.19	6.50	7.44	7.44	8.94	8.81
six months	4.75	2.81	3.69	5.87	6.75	6.62	6.94	7.62	7.50	8.87	8.62
twelve months	4.81	3.06	3.81	6.25	7.06	6.87	6.94	7.62	7.50	8.62	8.00
Euro-Swiss franc:											
one month	0.94	1.31	—.06	1.31	1.75	0.94	1.31	1.87	1.06	2.94	4.25
three months	1.44	1.37	0.00	1.56	1.94	0.19	1.44	1.00	1.75	4.00	4.50
six months	2.12	1.87	0.12	2.50	2.75	1.81	2.31	2.69	2.00	4.50	4.62
twelve months	2.50	2.25	0.62	2.75	3.12	2.12	2.56	2.94	2.37	4.12	4.50
Euro-sterling:											
one month	16.37	6.50	12.00	12.06	11.75	14.25	14.75	14.37	13.87	14.37	16.00
three months	16.12	6.62	12.62	11.69	11.75	14.00	14.75	14.25	14.06	15.12	16.50
six months	14.75	7.12	13.25	11.19	11.56	13.44	14.12	14.25	14.06	15.00	16.25
twelve months	14.50	7.37	13.00	11.00	11.37	12.62	13.25	13.75	13.50	14.56	15.12
Euro-French franc:											
one month	12.37	12.25	10.50	8.50	11.37	10.75	11.94	11.87	13.12	13.12	13.12
three months	12.62	13.25	9.87	8.25	11.37	11.00	12.06	12.44	13.25	14.00	13.62
six months	12.62	14.00	9.87	8.62	11.50	11.37	12.50	12.94	13.37	14.00	13.62
twelve months	12.50	13.25	10.25	9.25	11.50	11.37	12.25	12.94	13.31	13.87	13.62
Euro-yen:											
one month	7.00	0.62	—.69	4.44	4.62	4.69	6.00	6.87	6.87	5.87	8.50
three months	6.62	1.81	0.62	4.94	5.25	5.75	6.00	7.00	7.31	7.94	8.75
six months	6.44	2.75	1.87	5.56	5.69	6.06	6.37	7.00	7.19	8.06	8.44
twelve months	6.25	3.25	2.19	6.00	6.19	6.12	6.50	7.00	7.00	7.56	7.56

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1976	1977	1978	1979				
				Sep	Octr	Novr	Decp	Year
Industrial countries	**11 254**	**17 205**	**28 952**	**1 745**	**2 804**	**4 180**	**1 109**	**24 639**
Canada	885	3 292	5 705	20	—	1 250	—	1 845
Denmark	607	868	2 242	25	80	—	—	1 195
Finland	300	314	550	—	12	—	—	92
France	586	2 325	1 915	—	1 050	100	120	2 915
Greece	323	204	509	500	—	60	—	700
Ireland	433	440	616	37	—	—	—	687
Italy	355	1 024	2 485	565	23	120	550	3 488
Japan	370	112	27	—	—	—	—	—
Norway	472	182	1 517	25	60	16	—	864
Spain	2 037	1 973	2 426	260	892	150	14	3 945
Sweden	440	1 446	1 872	—	20	800	—	1 143
United Kingdom	1 671	1 992	3 899	—	—	—	—	678
United States	677	826	1 206	95	147	13	—	1 398
Others	2 097	2 207	3 983	218	667	1 671	425	5 689
Developing countries	**15 017**	**20 976**	**37 300**	**4 616**	**4 987**	**2 499**	**456**	**44 832**
Non-OPEC countries	11 019	13 494	26 902	3 325	3 540	1 975	456	32 699
Argentina	957	849	1 461	160	320	310	75	2 807
Brazil	3 232	2 814	5 634	70	1 391	168	—	5 760
Chile	208	591	1 045	—	295	—	60	795
Korea	738	1 265	2 651	186	50	68	29	2 658
Malaysia	207	212	858	—	550	200	—	868
Mexico	1 993	2 727	7 250	191	497	350	47	7 925
Morocco	641	797	605	—	—	—	—	500
Peru	395	189	—	40	45	8	65	596
Philippines	970	698	2 073	30	207	346	145	1 984
Taiwan	219	524	255	378	15	—	30	1 096
Others	1 458	2 828	5 070	2 270	170	525	5	7 710
OPEC countries	3 999	7 481	10 398	1 291	1 427	524	—	12 133
Algeria	643	723	2 576	25	—	200	—	1 831
Indonesia	469	817	1 118	—	29	—	—	1 061
Iran	1 411	1 220	1 107	—	—	—	—	—
United Arab Emirates	55	1 086	726	—	—	—	—	401
Venezuela	1 185	1 666	2 054	1 034	1 225	220	—	6 515
Other	235	1 969	2 817	232	173	104	—	2 325
Communist countries	**2 503**	**3 394**	**3 767**	**700**	**274**	**210**	—	**7 244**
China	—	—	—	100	120	—	—	3 595
East Germany	215	832	642	200	—	160	—	796
Hungary	300	300	700	250	—	—	—	260
Poland	525	19	374	—	14	50	—	826
Others	1 463	2 243	2 051	150	140	—	—	1 767
International organizations	**74**	**190**	**160**	**150**	—	—	—	**275**
TOTAL	**28 850**	**41 765**	**70 179**	**7 211**	**8 045**	**6 889**	**1 565**	**76 990**

a includes multi-national organizations *b* includes regional development organizations *c* includes COMECON institutions *p* preliminary
r revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	8.67	8.72	8.79	8.83	8.99	9.27	10.10	10.07
Swiss franc	5.46	5.31	5.70	5.93	6.11	6.11	6.12	6.18	6.20	6.48	6.54
European companies:											
U.S. dollar	8.56	8.42	9.21	9.22	9.25	9.29	9.45	9.65	9.86	10.79	10.76
German mark	7.38	6.80	6.84	7.17	7.26	7.25	7.08	7.13	7.16	7.40	7.46
Governments:											
U.S. dollar	8.90	8.42	9.12	9.15	9.16	9.18	9.25	9.43	9.49	10.41	10.57

New international bond issues

new issues in period, in millions of dollars

	1976	1977	1978	1979				
				Sep	Oct	Novr	Decp	Year
By type:								
Euro-bonds, total	**14 328**	**17 771**	**14 125**	**1 613**	**1 018**	**804**	**946**	**18 378**
by category of borrower								
U.S. companies	435	1 130	1 122	50	30	300	175	2 872
Foreign companies	5 323	7 347	4 540	795	436	355	518	6 988
State enterprises	4 138	4 667	3 291	236	371	92	—	4 508
Governments	2 239	2 936	3 643	532	—	—	73	2 346
International organizations	2 193	1 691	1 529	—	181	57	180	1 664
by currency of denomination								
U.S. dollar	9 125	11 627	7 290	990	640	655	873	12 320
German mark	2 713	4 131	5 251	308	271	114	—	3 539
Dutch guilder	502	452	394	134	13	—	—	531
Canadian dollar	1 407	655	—	52	—	—	—	425
European unit of account	99	28	165	—	—	35	73	253
Other	482	878	1 025	129	94	—	—	1 310
Foreign bonds outside the United States, total	**7 586**	**8 777**	**14 359**	**1 303**	**1 210**	**2 211**	**738**	**17 142**
by category of borrower								
U.S. companies	28	40	245	—	—	—	—	217
Foreign companies	1 654	1 421	2 110	308	179	215	141	3 437
State enterprises	2 439	2 427	3 163	337	354	611	165	3 206
Governments	1 307	2 043	5 771	228	430	1 263	123	7 600
International organizations	2 158	2 846	3 070	430	247	122	309	2 682
by currency of denomination								
German mark	1 288	2 181	3 789	347	228	1 746	302	5 234
Swiss franc	5 359	4 970	5 698	840	629	359	205	9 564
Dutch guilder	597	211	385	—	75	—	—	75
Japanese yen	226	1 271	3 826	—	261	61	123	1 707
Other	116	144	671	116	17	45	108	562
Foreign bonds in the United States, total	**10 604**	**7 428**	**5 795**	**1 089**	**215**	**398**	—	**4 515**
by category of borrower								
Canadian entities	6 138	3 022	3 142	734	215	—	—	2 193
International organizations	2 275	1 917	459	200	—	125	—	1 100
Other	2 191	2 489	2 194	155	—	273	—	1 222
By country of borrower:								
Industrial countries	**24 200**	**23 851**	**24 984**	**3 003**	**1 762**	**3 086**	**1 070**	**31 446**
Australia	1 056	1 074	1 218	—	44	—	123	593
Austria	682	1 384	1 027	155	128	168	—	1 155
Canada	9 336	5 277	4 764	820	215	—	57	4 167
Denmark	994	796	1 018	37	91	166	—	752
Finland	342	358	952	63	73	—	—	612
France	2 720	1 945	1 286	122	158	57	177	2 044
Japan	2 084	1 979	3 467	828	403	458	127	5 700
Netherlands	486	682	251	84	58	57	50	832
New Zealand	413	567	744	110	46	57	—	553
Norway	1 406	1 889	2 751	269	122	110	31	1 889
Sweden	1 111	1 574	876	164	—	267	16	1 530
United Kingdom	1 036	1 915	1 365	30	125	—	225	1 181
United States	463	1 353	2 973	50	30	1 421	175	6 767
Developing countries	**1 595**	**3 421**	**4 227**	**353**	**253**	**23**	**125**	**3 068**
Non-OPEC countries	1 456	2 676	2 684	298	253	—	105	2 650
Brazil	268	732	843	70	166	—	72	930
Mexico	448	1 282	568	—	—	—	25	363
Philippines	367	129	170	100	—	—	—	175
OPEC countries	139	745	1 543	55	—	23	20	418
Algeria	109	166	721	—	—	—	—	208
Venezuela	—	438	588	55	—	—	—	55
Communist countries	**96**	**248**	**30**	**19**	—	—	—	**75**
Hungary	25	174	—	—	—	—	—	—
International organizations	**6 628**	**6 454**	**5 058**	**630**	**428**	**304**	**489**	**5 446**
TOTAL	**32 518**	**33 976**	**34 279**	**4 005**	**2 443**	**3 413**	**1 684**	**40 035**

Central bank discount rates

	1976	1977	1978		1979			Current	
	end Dec	end Dec	end Sep	end Dec	end Mar	end Jun	end Sep	Dec 12 1979	effective since
United States	5.25	6.00	8.00	9.50	9.50	9.50	11.00	12.00	Oct 8, 79
Canada	8.50	7.50	9.50	10.75	11.25	11.25	12.25	14.00	Oct 25, 79
Japan	6.50	4.25	3.50	3.50	3.5u	4.25	5.25	6.25	Nov 1, 79
United Kingdom	14.25	7.00	10.00	12.50	13.00	14.00	14.00	17.00	Nov 15, 79
Belgium	9.00	9.00	6.00	6.00	6.00	9.00	9.00	10.50	Dec 12, 79
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	3.00	4.00	4.00	5.00	6.00	Nov 1, 79
Italy	15.00	11.50	10.50	10.50	10.50	10.50	10.50	15.00	Dec 6, 79
Netherlands	6.00	4.50	5.50	6.50	6.50	7.00	8.00	9.50	Nov 29, 79
Austria	4.00	5.50	4.50	4.50	3.75	3.75	3.75	3.75	Jan 25, 79
Denmark	10.00	9.00	8.00	8.00	8.00	9.00	11.00	11.00	Sep 17, 79
Finland	9.25	8.25	7.25	7.25	7.25	7.25	7.25	8.50	Nov 1, 79
Ireland	14.75	6.75	9.60	11.85	11.85	13.70	13.70	13.70	Jun 22, 79
Norway	6.00	6.00	7.00	7.00	7.00	7.00	7.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	6.50	6.50	8.00	9.00	Nov 23, 79
Switzerland	2.00	1.50	1.00	1.00	1.00	1.00	1.00	2.00	Nov 5, 79
Brazil	28.00	28.00	33.60	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	14.50	14.50	Jun 13, 78
New Zealand	8.50	10.00	11.00	11.00	12.50	13.00	13.00	13.00	Apr 19, 79
Philippines	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	Dec 12, 74
Singapore	4.00	3.50	4.00	4.50	4.50	5.00	5.75	6.25	Nov, 79
South Africa	9.00	9.00	8.50	8.50	7.50	7.50	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

Day-to-day money rates

monthly averages

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	4.65	6.55	9.91	9.98	10.23	10.26	10.42	10.88	11.32	13.07	13.64
Canada	8.66	6.84	9.44	10.77	10.88	10.47	11.03	10.96	9.87	12.08	12.18
Japan	7.11	5.01	4.57	4.87	5.12	5.34	5.86	6.73	6.81	6.74	7.61
Australia	7.17	9.96	8.40	7.57	7.57	7.82	8.58	8.74	8.89	8.50	7.86
United Kingdom	14.56	4.81	10.00	10.00	10.80	9.31	12.06	11.66	12.78	11.50	11.75
Belgium	7.51	7.48	6.73	5.31	4.94	7.80	9.66	9.37	8.96	11.49	10.01
France	10.44	9.30	6.67	6.82	7.20	8.01	9.34	10.44	11.00	11.47	11.95
Germany	5.03	3.24	3.61	5.23	5.19	5.62	5.75	6.40	6.70	6.62	7.85
Italy	16.75	11.37	11.00	11.12	11.12	11.25	11.25	11.25	11.25	12.37	12.37
Netherlands	6.89	5.27	10.00	7.19	7.15	7.69	8.81	8.81	9.58	9.41	n.a.
Austria	n.a.	9.25	5.37	4.50	5.00	6.25	6.00	5.75	6.50	6.62	6.75
Finland	14.53	22.99	9.29	8.42	8.35	8.35	8.31	8.36	8.68	9.13	12.87
Ireland	14.81	8.00	12.12	15.75	12.88	27.70	15.75	16.12	17.62	16.75	16.75
Spain	8.03	7.22	16.75	16.38	20.93	9.82	13.32	15.34	10.80	8.14	9.84
Sweden	10.69	8.91	6.26	6.01	6.86	7.74	9.16	10.00	9.24	10.75	9.08
Switzerland	0.50	0.85	0.00	0.37	0.75	0.87	0.50	0.87	1.12	0.75	1.50
Brazil	25.92	28.44	35.64	34.56	24.48	23.52	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	4.81	4.87	9.67	12.75	12.25	11.25	10.25	12.50	10.37	10.25	n.a.
Korea	14.00	14.40	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11
Philippines	15.46	14.44	13.22	14.18	14.66	14.92	14.61	14.56	11.75	10.48	n.a.
Singapore	3.59	3.59	4.98	5.88	6.38	6.84	7.11	7.09	6.66	6.40	6.85
South Africa	7.59	7.65	7.11	5.37	5.25	5.15	4.90	4.36	4.12	3.79	3.59
Euro-dollars	4.66	6.94	10.80	10.28	10.25	10.91	10.77	11.34	11.73	13.37	12.49

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	4.41	6.33	9.42	9.77	9.74	8.84	9.42	9.97	10.62	12.37	11.68
Canada	8.14	7.17	10.46	10.82	10.84	10.78	11.25	11.45	11.64	13.61	13.62
Japan	5.68	4.15	3.39	4.15	4.15	4.15	4.15	5.17	5.17	5.17	5.17
Australia	8.73	8.35	8.35	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02
United Kingdom	13.98	6.42	12.01	11.63	11.78	13.69	13.78	13.78	14.01	13.93	16.75
Belgium	10.00	9.25	9.25	7.90	9.00	11.25	12.00	12.00	13.00	14.00	14.30
Ireland	14.28	6.74	11.83	11.39	11.31	11.67	13.48	13.60	13.56	13.72	16.36
Italy	17.38	12.81	12.81	11.51	10.92	11.51	11.62	11.62	11.62	12.87	12.92
Netherlands	5.63	6.00	9.50	6.75	7.25	7.50	8.75	9.00	9.00	9.50	n.a.
Sweden	9.75	9.21	5.84	5.83	5.82	5.82	6.60	6.60	6.60	8.70	9.74
Brazil	38.58	38.08	41.21	38.51	38.39	43.95	n.a.	n.a.	n.a.	n.a.	n.a.
Korea	n.a.	16.88	17.01	17.01	17.01	17.01	19.53	19.53	19.53	19.53	19.53
Mexico	n.a.	n.a.	12.75	14.03	14.29	14.45	14.89	15.32	15.58	n.a.	n.a.
New Zealand	4.00	7.50	10.50	10.60	10.60	10.60	10.60	10.60	10.60	11.25	11.25
Philippines	9.78	10.04	12.08	12.33	12.57	12.75	12.82	12.77	12.70	12.68	n.a.
Singapore	2.99	3.17	4.01	4.39	4.53	4.55	4.60	5.25	5.73	5.70	5.65
South Africa	7.94	8.17	7.61	5.65	5.57	5.49	5.11	4.56	4.49	3.97	3.90

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	4.75	6.84	10.57	9.84	10.15	9.94	10.20	11.26	11.95	14.72	12.90
Canada	8.62	7.25	10.62	11.25	11.12	11.00	11.62	12.00	11.90	14.62	13.65
Japan	6.75	5.89	4.64	5.01	5.21	5.29	5.81	6.41	7.12	6.97	8.14
Australia	9.75	9.75	9.10	11.00	10.60	10.40	10.00	10.20	10.30	10.65	10.50
United Kingdom	14.38	6.50	12.50	11.62	11.75	14.00	14.19	14.12	14.06	14.75	16.81
Belgium	10.50	9.50	9.25	8.05	9.15	9.75	12.00	12.00	12.50	14.10	14.35
France	10.00	9.19	6.44	7.00	8.62	9.19	10.69	11.37	11.62	12.50	12.37
Germany	4.80	3.60	3.70	5.75	6.40	6.65	6.95	7.45	7.90	9.75	9.50
Ireland	14.69	6.75	13.00	14.37	14.25	18.50	17.87	17.62	17.62	17.50	17.75
Italy	16.63	11.75	11.37	11.50	11.50	11.44	11.62	11.62	11.62	12.75	13.62
Netherlands	5.88	6.25	10.50	7.50	9.12	8.50	9.62	9.62	9.87	10.75	14.25
Spain	11.36	12.06	22.80	19.50	24.60	16.90	16.20	18.80	15.70	11.60	12.80
Switzerland	1.84	2.02	0.50	1.62	2.12	2.00	1.62	2.12	1.62	3.62	4.50
Brazil	45.44	46.93	51.47	46.63	45.88	47.23	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	5.50	5.73	11.82	13.12	13.25	12.38	11.50	13.45	13.12	12.75	n.a.
Korea	16.99	16.88	17.01	17.01	17.01	17.01	19.53	19.53	19.53	19.53	19.53
New Zealand	10.37	11.87	12.00	14.50	14.25	14.50	15.25	15.50	15.00	16.00	16.25
Philippines	15.47	11.96	11.48	12.46	11.88	11.63	10.76	10.13	9.94	10.01	n.a.
Singapore	3.75	4.81	7.38	7.38	7.44	7.63	7.81	8.25	8.75	8.25	8.25
South Africa	9.73	9.00	7.85	6.07	5.97	5.86	5.45	5.03	4.93	4.30	4.12

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	4.70	6.80	10.90	10.25	10.10	9.90	10.30	11.35	12.10	14.50	13.20
Canada	8.00	7.25	10.45	11.20	11.05	11.05	11.55	11.80	11.90	14.50	13.40
Japan	4.50	3.25	2.50	2.50	3.25	3.25	3.25	4.00	4.00	4.00	4.00
Australia	9.75	9.50	8.50	10.50	10.50	10.00	9.50	9.70	9.90	10.00	10.15
United Kingdom	14.13	6.37	12.25	11.75	11.81	13.75	14.00	14.19	14.06	14.62	16.75
Belgium	10.00	9.50	9.87	8.00	9.13	11.12	12.12	12.13	13.00	14.37	14.63
France	9.50	9.00	6.50	7.25	8.25	9.50	10.50	11.25	11.50	12.50	12.75
Germany	4.20	3.40	3.50	5.25	5.50	6.00	6.50	6.50	7.00	8.25	8.25
Italy	17.00	17.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	13.02	12.50
Netherlands	6.13	7.00	11.62	8.12	9.50	9.25	10.00	10.12	10.25	11.00	n.a.
Austria	n.a.	9.00	6.75	5.50	6.12	7.25	7.50	7.37	8.25	8.75	8.50
Denmark	9.00	8.00	7.00	7.00	7.00	8.00	8.00	8.00	10.00	10.00	10.00
Finland	5.75	4.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	4.25
Ireland	n.a.	6.87	12.75	14.62	14.00	16.75	16.75	17.37	17.25	17.25	17.50
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	6.25	6.25	6.25	6.75	6.75	6.75	7.75	8.75
Switzerland	1.50	1.12	0.12	0.75	1.25	0.75	0.75	1.25	1.00	2.25	3.75
Brazil	45.60	39.60	46.80	43.80	48.24	46.92	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	3.25	1.75	4.50	7.75	7.75	7.75	7.75	9.25	9.25	9.25	9.25
Korea	15.00	13.20	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	9.50	9.50	12.00	12.00	12.00	12.00	12.00	12.39	13.68	n.a.	n.a.
New Zealand	10.25	11.00	12.00	14.00	13.80	14.10	15.00	14.75	14.50	15.50	15.75
Philippines	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
Singapore	3.75	5.31	7.31	6.69	6.94	7.00	7.44	8.12	8.44	8.31	8.12
South Africa	9.75	8.70	7.30	5.80	5.70	5.65	5.27	4.87	4.75	4.10	4.00
Venezuela	8.00	7.00	7.25	13.50	13.50	13.50	13.50	13.50	13.50	13.50	15.00
Euro-dollars	5.00	7.19	11.69	10.75	10.44	10.50	11.31	12.12	12.75	15.69	14.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	6.00	7.75	11.75	11.75	11.75	11.50	11.75	12.75	13.50	15.00	15.50
Canada	9.25	8.25	11.50	12.00	12.00	12.00	12.50	12.50	13.00	14.75	15.00
Japan	7.42	5.47	4.50	4.48	4.68	4.87	5.08	5.38	5.68	6.00	6.19
Australia	11.50	11.50	11.00	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75
United Kingdom	15.50	8.00	13.50	13.00	13.00	15.00	15.00	15.00	15.00	15.00	18.00
Belgium	11.75	10.00	10.00	9.00	10.00	11.00	12.50	12.50	13.25	14.00	14.75
France	11.65	11.35	10.95	10.95	11.30	11.60	12.20	12.20	12.50	12.65	13.65
Germany	6.50	6.00	5.50	6.75	6.50	7.50	7.75	7.75	8.25	8.75	9.75
Italy	21.00	16.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50
Netherlands	8.50	7.00	12.00	9.00	10.00	10.00	11.00	11.00	11.00	11.37	n.a.
Austria	n.a.	9.75	8.75	8.00	8.00	8.00	8.00	8.00	8.00	8.50	8.50
Denmark	14.00	12.50	10.00	9.50	10.00	11.00	11.00	11.00	13.00	13.25	n.a.
Finland	9.71	8.85	7.87	7.82	7.83	7.83	7.84	7.83	7.85	n.a.	n.a.
Ireland	13.25	7.50	13.00	13.00	13.00	15.50	15.50	15.50	15.50	15.50	15.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	11.75	11.75	10.25	10.25	10.25	10.25	10.75	10.75	10.75	12.75	13.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Brazil	30.00	52.05	61.70	62.00	63.50	61.82	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	6.00	4.75	8.75	13.00	13.00	13.00	13.00	14.50	14.50	14.50	14.50
Korea	17.00	15.00	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
Mexico	15.50	17.00	17.50	17.50	17.50	17.50	17.50	17.50	17.50	19.00	19.00
New Zealand	7.50	8.50	10.75	11.50	12.00	11.75	11.50	12.00	11.75	13.50	12.50
Philippines	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Singapore	6.78	7.02	7.65	8.12	8.12	8.12	8.35	8.78	8.92	9.10	9.18
South Africa	12.50	12.50	11.50	10.00	10.00	10.00	10.00	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	11.50	11.50	11.50	11.50	11.50	11.50	13.00
Euro-dollars	5.50	7.56	12.06	11.12	10.81	10.87	11.68	12.49	13.12	16.06	14.37

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	7.20	7.97	9.00	9.20	9.07	8.82	8.95	9.05	9.28	10.50	10.09
Canada	8.47	8.77	9.68	9.66	9.68	9.73	9.84	10.15	10.38	11.16	10.94
Japan	8.61	6.40	6.40	7.97	8.02	8.16	7.85	8.14	8.04	8.46	8.78
Australia	10.50	9.50	8.90	10.00	10.00	10.10	10.25	10.15	10.15	10.30	10.40
United Kingdom	14.31	10.53	12.75	11.39	11.89	12.34	12.10	11.76	12.05	12.72	13.98
Belgium	9.30	8.76	8.80	8.99	9.21	9.42	9.63	9.80	9.90	10.58	11.00
France	11.04	11.07	9.94	9.64	9.96	10.71	11.25	11.67	11.56	11.60	12.09
Germany	7.28	5.52	6.65	7.41	7.91	8.04	7.71	7.66	7.65	8.07	7.81
Italy	13.92	10.82	10.89	10.90	10.91	10.90	10.91	10.84	10.81	11.26	11.31
Netherlands	8.40	8.11	8.48	8.58	8.77	9.01	8.98	8.73	8.77	8.83	n.a.
Austria	8.55	9.00	7.91	7.59	7.85	8.05	8.16	8.19	8.22	8.26	n.a.
Denmark	14.57	16.83	17.27	15.68	16.85	17.13	17.23	17.35	17.76	17.80	n.a.
Finland	10.92	10.25	9.19	9.51	9.41	9.53	9.39	9.41	9.53	9.34	9.49
Ireland	15.49	11.30	13.44	13.46	13.81	15.37	15.99	15.92	15.72	16.64	16.64
Norway	7.25	8.37	8.19	8.31	8.38	8.26	8.29	8.32	8.25	n.a.	n.a.
Sweden	9.61	9.84	10.09	10.18	10.20	10.21	n.a.	n.a.	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.19	3.19	3.43	3.51	3.51	3.50	3.63	4.04
Brazil	38.39	37.30	52.83	44.33	44.32	46.05	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	8.70	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Philippines	13.41	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.30	13.30
South Africa	11.00	10.75	9.85	9.20	9.53	9.74	9.73	9.55	9.40	9.29	9.34
Venezuela	7.04	7.24	7.24	7.35	7.37	7.36	7.21	7.35	7.36	7.35	7.33

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	7.35	8.30	9.25	9.55	9.40	9.15	9.20	9.45	9.70	11.00	10.50
Canada	9.58	9.71	10.34	10.30	10.29	10.34	10.52	10.85	11.09	11.97	11.72
Japan	8.81	6.68	6.94	7.84	7.90	8.05	7.80	7.75	7.79	8.11	8.34
Australia	12.00	11.00	10.25	11.00	11.00	11.25	11.35	11.25	11.15	11.40	11.65
United Kingdom	15.96	11.88	13.53	12.08	12.31	13.00	12.76	12.64	12.88	13.40	14.89
Belgium	11.88	9.85	9.58	9.70	9.82	10.13	10.32	10.83	10.92	11.34	11.70
France	11.39	12.09	10.27	10.01	10.30	11.12	11.54	12.03	11.88	11.84	12.33
Germany	7.47	5.92	6.80	7.30	7.60	7.90	8.00	7.80	7.80	8.00	n.a.
Italy	16.90	10.71	10.12	10.27	9.84	10.07	10.07	10.04	9.92	9.99	9.90
Netherlands	8.22	7.90	8.62	8.47	8.73	9.12	9.15	8.96	8.82	9.10	n.a.
Norway	7.65	8.59	8.37	8.47	8.56	8.36	8.45	8.54	8.63	n.a.	n.a.
Spain	10.86	11.58	12.17	12.06	11.69	11.52	11.79	12.04	12.04	11.54	n.a.
Sweden	9.82	9.83	10.03	9.51	9.62	9.48	9.16	9.59	9.65	9.75	n.a.
Switzerland	5.50	4.96	4.85	5.02	5.15	5.30	5.17	5.24	5.27	5.28	5.44
Korea	21.70	19.60	24.00	25.00	29.00	29.00	29.20	29.20	29.20	29.20	29.20
Mexico	15.56	17.56	20.37	20.74	19.21	19.88	19.51	n.a.	n.a.	n.a.	n.a.
Venezuela	10.37	10.39	12.43	12.18	11.70	12.28	12.69	12.71	13.35	13.59	14.06

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Key to data in tables

I. International markets

Definitions

An *international bond* issue is one sold outside the country of the borrower. It may be either a Euro-bond issue or a foreign bond issue.

A *Euro-bond* issue is one underwritten by an international syndicate and sold principally in countries other than the country of the currency in which the issue is denominated.

A *foreign bond* issue is one underwritten by a syndicate composed of members from one country, sold principally in that country, and denominated in the currency of that country.

A *Euro-currency bank credit* is a loan in a currency which is not native to the country in which the bank office making the loan is located.

Data on *new international bond issue volume* include all publicly announced issues with an original maturity of three years or more, whether publicly or privately placed, but exclude those where the investor is a central bank, monetary authority, or government.

Data on *new Euro-currency bank credit volume* include all publicly announced loans with an original maturity of more than one year. A loan is included in the period in which the lending banks make a commitment covering the amount and terms of the loan to the borrower.

Categories of borrower

U.S. companies include both parent companies and their financing affiliates, either domestic or foreign.

Other companies include private companies domiciled outside the United States and their affiliates.

State enterprises include public agencies.

Governments include central and local governments.

Country of borrower

The country of the borrower is the residence of the borrowing entity, except where the entity is a financing vehicle, in which case the residence of the parent company and or guarantor is used.

International bond yields

Yields are calculated to the nearest day of maturity. Interest on bonds with annual coupons is discounted semiannually for comparability in computation of yield.

The yield indices are simple arithmetic averages of end-of-month secondary market yields for groups of selected straight-debt securities. Yield indices for six categories of bonds have been calculated according to borrower and currency. They are based on issues of good-quality, well-known borrowers. Occasionally the individual issues in each category are changed.

The number of issues represented in each of the indices is as follows:

Long-Term, U.S. companies, U.S. dollar — —ten Euro-bond issues.

Long-term, U.S. companies, Swiss franc — eight foreign bond issues.

Long-term, European companies, U.S. dollar — ten Euro-bond issues.

Long-term, European companies, German mark — ten Euro-bond issues.

Long-term, governments, U.S. dollar — six Euro-bond issues (governments of Italy, Denmark, and France).

Euro-currency deposit rates

All data are prime banks' bid rates for deposits in London. Offer rates commonly used as a basis for Euro-dollar lending are generally .125% above bid rates.

II. Domestic markets

Day-to-day money rates

Austria — day-to-day interbank rate.

Australia — approximate effective interest rate in the authorized short-term money market.

Belgium — interbank call money.

Brazil — interbank overnight market for Banco do Brasil checks.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48 hour call money.

Japan — Tokyo interbank call money, overnight lenders rate until December 1974. New series as of January 1975, unconditional lenders rate.

Korea — call money.

Mexico — financiera bonds in bearer form available to corporations, redeemable on demand. Higher rates available to individuals.

Netherlands — open-market call money.

Philippines — interbank call money.

Singapore — interbank overnight money.

South Africa — National Finance Corporation call money.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

United Kingdom — call money.

United States — effective Federal funds rate.

Euro-dollars — prime banks' bid rate for overnight money.

Treasury bill rates

Australia — new issues of 13-week Treasury notes.

Belgium — 3-month Treasury certificates.

Brazil — 91-day Treasury bills (LTN), at tender.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month Central Bank Exchequer bills.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Korea — 3-month Treasury bills sold by Korean Central Bank.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — 3-month Treasury bills.

Philippines — 91-day Treasury bills at tender.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Sweden — new issues of 3-month Treasury bills.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — 3-month prime finance company paper.

Belgium — 4-month Fonds des Rentes certificates.

Brazil — 90-day first class commercial paper of major financial groups.

Canada — 3-month prime finance company paper.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — Tokyo interbank call money, unconditional, lender's rate until December 1974. New series as of January 1975, 3-month repurchase agreements.

Korea — 3-month financial bill.

Netherlands — 3-month municipal loans until December 1976. New series as of January 1977, 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — 90-day promissory notes.

Singapore — 3-month bank acceptances.

South Africa — 90-day bank acceptances.

Spain — 1- to 2-month interbank deposits.

Switzerland — 3-month interbank deposits.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month non-negotiable certificates of deposit of investment banks. Legal maximum rates until April 1975, free rate subsequently.

Canada — 3-month time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — 3-month certificates of deposit. Rate set by the Hong Kong Exchange Banks' Association.

Ireland — 3-month time deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Key to data in tables – continued

Japan — 3-month time deposits.

Korea — 3-month time deposits.

Mexico — 3-month certificates of deposit issued by financieras to corporations for amounts over Ps. 1 million. Higher rates available to individuals.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month time deposits. Higher rates may be negotiated for 12-month or more time deposits in large amounts.

Philippines — 3-month time deposits.

Singapore — 3-month time deposits until May 1975, 3-month certificates of deposit thereafter.

South Africa — 3-month time deposits at merchant bank until May 1975. Negotiable certificates of deposit from June 1975.

Spain — maximum legal rate for 3-month deposits.

Sweden — deposits at 6-months' notice.

Switzerland — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month certificates of deposit for amounts above Bv. 250,000 until December 1977. New series as of January 1979, 6-month certificates of deposits for domestic borrowers for amounts above Bv. 1,500,000.

Euro-dollars — prime banks' bid rate for 3-month deposits in London.

Commercial bank lending rates to prime borrowers

Austria — overdraft rate for prime borrowers, including commission.

Australia — approximate overdraft rate for prime borrowers. Rate for prime borrowers usually .25% to .75% below the maximum overdraft rate; rate shown is .5% below.

Belgium — prime overdraft rate.

Brazil — commercial bank legal maximum rate (discount basis) for maturities up to 60 days until August 1977. In addition, compensating balances were required. New series as of September 1977, weighted average investment bank lending rates.

Canada — prime rate.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — overdraft rate for prime borrowers, including a commission of .05% per month on highest debit balance during the month.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime rate.

Ireland — AAA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average rate on loans and discounts of city banks, computed by the Bank of Japan until December 1974. New series as of January 1975, average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Mexico — major bank prime rate, subject to legal maximum. In addition, compensating balances are required.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .333% prior to July 1978, .25% thereafter, per quarter on the total line of credit.

Philippines — maximum legal rate, for unsecured loans exclusive of service fee.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — maximum legal rate for discounting commercial bills plus a commission of 1% per annum. In addition, compensating balances may be required.

Sweden — overdraft rate for prime corporate borrowers, including a fee of 1% from January 1972 to March 1976, .75% from April 1976 on total amount of credit authorized.

Switzerland — overdraft rate for prime borrowers, including commission of .25% per quarter on highest debit balance in quarter.

United Kingdom — unsecured overdraft rate for prime borrowers.

United States — prime rate of Morgan Guaranty Trust Company. In addition, compensating balances are required.

Venezuela — representative rate for prime borrowers until December 1978. New series as of January 1979, similar rate for domestic prime borrowers only.

Euro-dollars — representative average rate for 3-month loans to prime borrowers.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — 20-year government bonds.

Belgium — Belgian National Bank average yield on government bonds maturing in more than five years.

Brazil — 5-year inflation-indexed 8% Treasury Readjustable Obligations (ORTN).

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 5% government bond of 2007 until December 1976. New series as of January 1977, 10% government bonds with maturity of 7 to 8 years.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — Institut National de la Statistique et des Etudes Economiques (INSEE) yield on public and semi-public sector bonds.

Germany — Frankfurter Allgemeine Zeitung (FAZ) 7% public authority bond average until September 1978. New series as of October 1978, FAZ 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average of yields on six outstanding bonds of public-sector entities, new series as of January 1977.

Japan — average yield on outstanding maturities of 6.5% national government bonds until December 1974. New series as of January 1975, secondary market yield for the 6.1% due 1988 national government bond.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest 7% to 7.75% government bonds.

New Zealand — average yield on government bonds maturing after 10 years.

Norway — 5% government bond of 1996.

Philippines — Central Bank 5-year Certificate of Indebtedness, regular issue.

South Africa — 25-year government bonds.

Sweden — 15-year government bonds.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 20-year government stock until December 1975. New series as of January 1976, F.T. Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Domestic corporate bond yields

Australia — long-term secured debentures, indicated by Australian United Corporation.

Belgium — Belgian National Bank average yield on private corporate bonds maturing in more than five years.

Canada — McLeod, Young, Weir Co. Ltd., average yield on ten industrial bonds.

France — INSEE tax-adjusted average yield on outstanding private corporate bonds.

Germany — FAZ 6% industrial bond average until September 1978 New series as of October 1978, Bundesbank average yield on industrial bonds

Italy — average of yields on six outstanding bonds of leading Italian industrial companies; new series as of January 1977.

Japan — average of yields on outstanding Nippon Telegraph & Telephone interest-bearing yen debentures until December 1974. New series as of January 1975, secondary market yield for NTT bond maturing April 1987.

Korea — average of yields on 3-year corporate bonds guaranteed by local banks.

Mexico — 9% Teléfonos de Mexico bond, series AA, of 1990 until December 1976. Average of yields of six outstanding Telefonos de Mexico bonds from January 1977.

Netherlands — CBS average yield on three 6% to 6.5% corporate bonds.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984.

Spain — average yield for a selected group of electricity companies.

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of five leading Swiss companies.

United Kingdom — F.T. (Financial Times) Actuaries 20-year debentures and loans.

United States — Salomon Brothers index of new issue yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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World Financial Markets

Morgan Guaranty Trust Company of New York

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1980

January, 1980

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Nominal effective dollar exchange rate

month'y averages, index, March 1973=100

Latest plotting Jan 21

Foreign exchange market developments

The dollar has held up well in the past two months or so, despite the further rises in oil prices, the situations in Iran and Afghanistan, the sharp rise in the prices of gold, silver, and some other metals, and the announcement of embargoes on exports to the Soviet Union. The dollar has moved within a fairly narrow range since the end of October and has strengthened somewhat lately (see chart). In the two weeks to January 23, the dollar appreciated about ½% on an effective basis. It rose from Y233 to Y237, from DM 171 to DM 173, and from about SWF 1.57 to SWF 1.60, and climbed against most European currencies, more than offsetting declines *vis-à-vis* the Canadian dollar and sterling.

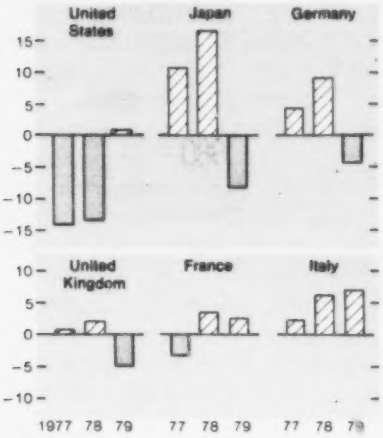
The dollar's rather steady performance occurred without very much official intervention in recent months. U.S. liabilities to foreign official institutions rose by about $4½ billion from the end of November to mid-January. But this increase mainly reflected swap operations between German and Swiss central banks and their respective domestic commercial banks, a form of open market operation partly designed to achieve a temporary increase in domestic liquidity, which also influences the foreign exchange markets. There appears to have been no appreciable use of the U.S. Federal Reserve and Treasury swap lines with foreign monetary authorities.

Several factors have contributed to the dollar's resiliency. Even though the long-awaited recession has failed to appear and the cost of U.S. oil imports has risen strongly, the U.S. current account position has improved considerably in both absolute and relative terms. It is estimated that there was a surplus of about $¾ billion in 1979, compared with a deficit of $13½ billion in 1978. In the third quarter of last year the current account was in surplus at a seasonally-adjusted annual rate of more than $3 billion, and there may have been a small surplus in October-December even though the cost of net oil imports rose further.

In 1979, the U.S. merchandise trade deficit was reduced by an estimated $5 billion, to about $23½ billion on a customs basis and $28½ billion on a balance-of-payments basis. Net oil imports rose by some $18 billion, from $42 billion in 1978 to $60 billion last year. However, there was an improvement in the U.S. non-oil trade balance of

Current account balances

in billions of dollars



about $23 billion, including favorable shifts of $14 billion in manufactured goods, $3½ billion in agricultural commodities, and $3 billion in other raw materials.

The improvement in the balance on trade in manufactures reflected in part the shift in the differential between growth in the United States and that in other industrial countries. The increase in U.S. real GNP slowed from 4.4% in 1978 to 2.3% last year, while growth in all other industrial countries combined remained at around 3¾%. Probably of equal importance, U.S. trade in manufactures, particularly in capital goods, benefited from the delayed effects of the 1977-78 real dollar depreciation. The real dollar effective rate still is about 3% lower than it was on average in 1973-77 on a bilateral trade-weighted basis and 10% on a multilaterally weighted basis.

The bulk of the estimated $14 billion improvement in the U.S. current account balance during 1979 resulted from a rise of $9 billion in net services earnings, which in turn was due to an estimated $10 billion increase in net direct investment income, to about $32 billion. It should be noted that nearly half of this net amount, or an estimated $14 billion, was not repatriated to the United States; excluding these nonrepatriated earnings, last year's current account balance was in deficit by approximately $14 billion (versus $23 billion in 1978).

While the U.S. trade and current account positions were much improved last year, those of a number of other major industrial countries weakened considerably. For example, the current account balance of Japan moved from a surplus of $16½ billion in 1978 to a deficit of $8½ billion in 1979, and that of Germany from a surplus of $9 billion to a deficit of about $4 billion (see chart).

The outlook for the relative U.S. current account position in 1980 continues to be favorable, at least for the next six to nine months. The U.S. current balance may weaken modestly, to a deficit of up to $5 billion, assuming only a mild U.S. recession and oil import prices averaging a little over $30 per barrel in 1980. The merchandise trade deficit could widen by as much as $10 billion, to $33 billion (customs basis), but net services may improve by $5 billion. True, net oil imports will rise strongly again, by perhaps $32 billion, to $92 billion. But the surplus on net manufactures trade may widen by $18 billion, to $27 billion. Foreign sales of U.S. aircraft, alone, are expected to rise by $3 billion. The balance on net trade in agricultural products is not expected to change much, due in part to the impact of the embargo on U.S. grain sales to the Soviet Union, but there admittedly is a high degree of uncertainty regarding such matters as the duration of the embargo, possible alternative outlets for overseas grain sales, and the effect on prices.

At the same time other industrial countries are expected to remain in substantial deficit. The combined current account deficit of all major European countries may rise from about $10 billion to $25 billion between 1979 and 1980. The German authorities recently acknowledged that Germany's current account deficit could be between DM 15 billion and DM 18 billion in 1980, or not much changed from the seasonally-adjusted annual rate in the closing months of 1979. Japan's deficit, which was $8½ billion in 1979 and nearly $17½ billion at a seasonally-adjusted rate in the three months to last November, may not be much reduced until the second half of this year.

A second major factor supporting the dollar has been the firmer stance of U.S. monetary authorities

Table 1

Three-month Euro-currency deposit rates

percent per annum end of period

	1979		1980
	Jul	Oct	Jan 22
United States	11.31	15.69	14.44
Germany	6.50	8.94	8.44
Japan	6.00	7.94	7.88
Switzerland	1.44	4.00	5.44
United Kingdom	14.75	15.12	18.12
France	12.06	14.00	12.69
Canada	11.12	14.25	13.56
Netherlands	9.12	9.69	10.81

since early October. While some U.S. interest rates have dipped from their peaks reached near the end of October, they remain well above their levels in earlier months. For example, three-month Treasury bill yields recently have been near 12%, compared with 9%-9½% during much of the first three quarters of 1979. Some long-term rates recently reached all-time highs. At present levels, U.S. interest rates are far more attractive relative to the rate of inflation than they were formerly.

Nor are U.S. rates likely to decline markedly anytime soon, given the surprising strength of the U.S. economy and the persistence of inflation — particularly with much of the recent sharp rise in energy prices and mortgage interest rates yet to work their way fully into the consumer price index. Under the circumstances, Federal Reserve Board Chairman Volcker seems to have more latitude in maintaining restraint than was expected, and overt criticism of the Fed has diminished.

The sustained higher level of U.S. interest rates has increased the comparative return on dollar-denominated instruments *vis-à-vis* those in other currencies. In mid-January, three-month Euro-dollar deposit rates, for example, were about 600 basis points higher than Euro-mark and Euro-yen rates, and 800 points above Euro-Swiss franc rates (see Table 1).

There are tentative encouraging signs that growth in the money supply may be coming under better control. Growth in M1 and M2 has slackened perceptibly on a thirteen-week average basis, after having moved above the upper limits of the Fed target ranges in the autumn, and expansion of the monetary base has come down from a rate of about 13% in mid-October to one of about 8% in early January. However, there is some question about the adequacy of the seasonal adjustment factor applied to the money supply numbers for the fourth quarter, and bank lending has grown rapidly in the past two months in response to strong credit demand.

U.S. wholesale prices rose only 0.8% in December, compared with 1.3% in November. However, it will take a while for the more restrictive monetary policy to have much lasting effect on inflation, and recent energy price rises may continue for some time to work against a dampening of inflationary expectations. By the end of this year, U.S. price inflation may be decelerating from current rates. In the meantime a firm Fed stance can help to improve the psychological climate bearing on U.S. international flows of capital, which have been in approximate balance since October.

Diversification out of dollars into other currencies by some non-G-10 countries apparently has continued, but not on a major scale. Indeed, on average it may have slowed from the pace of last summer and early fall. Much of the recent asset diversification taking place may have been into gold and other metals. While the potential for currency diversification on a much larger scale remains one of the more important possible sources of downward pressure on the dollar, present trends in current account positions and existing interest rate differentials have probably diminished the risk. Also, with some other countries (e.g., Germany, Japan, and the United Kingdom) in current account deficit, there can be appreciable currency diversification without major shifts in foreign exchange rates. Further, events in the Middle East may be helping the dollar by attracting flight capital to the United States. Some of it may have come to the U.S. stock market, which has ad-

vanced about 5% so far in 1980 according to the Dow-Jones industrial index.

U.S. willingness to intervene to support the dollar in foreign exchange markets was underlined by another issue of Carter bonds ($1.2 billion equivalent) in Germany this month. European central banks, as well, appear willing to intervene in substantial amounts if necessary to avoid large movements in real exchange rates. There also appears to be a more flexible attitude among foreign central banks, manifested in increasing willingness to consider the provision of off-market investment instruments to satisfy desires for diversification out of dollars. This amounts to a new, indirect, form of official intervention that could be effective in helping to keep the movement of exchange rates more in line with fundamental economic trends.

Finally, the upsurge in the price of gold has greatly enhanced the value of the U.S. gold hoard, which at 260 million ounces still is, for example, more than that of Germany, France and Switzerland combined (excluding deposits with the EMS). At $650 per ounce, U.S. gold reserves are worth over $170 billion (compared with U.S. liabilities to foreign official institutions of about $150 billion) and provide additional support for the dollar.

LDCs' exchange rate adjustments

One of the constructive developments on the international scene is the evident willingness of some important developing countries, in the face of their oil-price inflated current account deficits, to take substantial measures of adjustment including exchange rate changes. The accompanying table shows the real effective exchange rate indices for some non-OPEC developing countries. These indices are not of the same quality as those calculated for developed countries because of factors such as the inadequacy of domestic price indices for manufactures, multiple exchange rate practices, subsidies, export taxes, and various forms of exchange control. Nevertheless, it is clear from the table that the exchange rates of several countries had become substantially overvalued during the course of 1979. Some of these now have taken corrective action to reduce this overvaluation, and Brazil, whose currency had not become overvalued relative to the base period, took exchange rate action to complement a liberalization of its foreign trade regime.

On December 10, the government of Brazil instituted a 30% "maxi-devaluation" of the cruzeiro, indicated its intention to continue to apply its crawling peg devaluation to offset the subsequent adverse domestic inflation differential, and took a number of other actions designed to deregulate the economy and promote efficiency. A secondary objective was to make borrowing abroad more attractive to multinational firms operating in Brazil. Supporting measures include an elimination of the cash rebate portion of export subsidies; termination of the former 360-day, 80% import deposit and exemptions from sales taxes on imports; decreases in credit subsidies to agriculture; and mandated reductions in the imports of public-sector entities. These steps are expected to reduce the trade deficit for 1980 by about $400 million, to $2.6 billion from the previously expected $3 billion. While the large devaluation will have a serious inflationary impact in the next year or so, the liberalization removes accumulated market distortions and may have a beneficial

Table 2

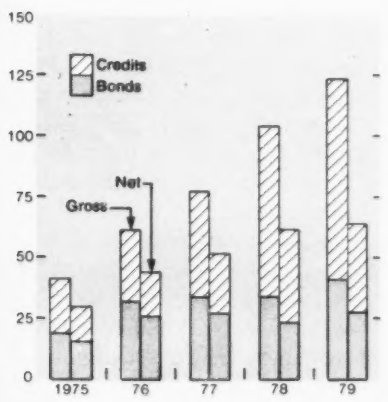
Real effective exchange rates for selected non-OPEC LDCs

index numbers March 1973=100

	1978 Dec	1979 Jun	est. Dec
Argentina	111.3	135.3	140.6
Brazil	88.4	84.6	71.3
Chile	75.2	82.8	89.1
Colombia	112.3	121.0	123.8
Mexico	94.6	100.1	96.8
Peru	55.6	59.2	62.1
India	76.7	81.5	80.4
Korea	125.8	133.9	132.6
Malaysia	86.8	84.9	82.5
Philippines	125.8	136.3	144.7
Taiwan	94.0	101.2	102.1
Thailand	92.5	100.0	101.2
Turkey	129.4	149.8	150.0
Greece	106.2	114.8	114.7
Portugal	59.8	61.2	56.6
Yugoslavia	101.1	97.9	91.1

Gross and net new international bond issues and Euro-currency bank credits *

in billions of dollars



*Gross figures are based on publicized new bond issues and credits. Net figures equal gross totals minus new bond issues by major international banks, minus advance refinancings of Euro-credits, and minus estimated repayments of bonds and credits.

impact on the economy in the longer term.

On January 12, Korea announced a 16½% devaluation of the won, which moved its real effective rate down to an index number of about 110 (March 1973=100) from 133 at the end of 1979. This move was accompanied by increases in prime lending and one-year time deposit rates of up to 600 basis points and a decision to consider a cut in government expenditures in 1980 of 5%-7% from the level previously anticipated. Korea's current account deficit in 1980 is now expected to be about $4.7 billion rather than $5.4 billion, and the favorable impact is expected to reach $1.1 billion in 1981. The measures taken evidence a return to greater pragmatism in Korean economic policy, and an intention to meet a part of the higher oil import bill from domestic resources rather than by additional borrowing abroad.

Two other countries which are facing substantial external imbalances are the Philippines and Thailand. Each may have a current account deficit in the vicinity of $2 billion this year. The Philippine government already has tightened monetary conditions and raised administered interest rates, and it intends to further promote exports through various policies which include increased fiscal incentives. Both countries have had discussions with the International Monetary Fund aimed at negotiating standby credit arrangements under the supplementary financing facility. IMF missions have completed their work and the Fund has made proposals, which may have been accepted by the authorities in the two countries. In the case of the Philippines, there is speculation that adjustment of the exchange rate may be a part of the proposed package.

Turkey devalued the lira by 30% in June 1979, and agreed with the IMF to reduce government borrowing from the central bank. But with Turkey's domestic price inflation so rapid, the real effective lira rate was even higher in December than it was in June 1979 (see table). Also, the current account deficit is expected to reach at least $2 billion in 1980, and perhaps much more. The Turkish government reportedly is aiming for an ambitious 35% increase in imports, to $7 billion. Whether this will be possible will depend heavily on the actions of foreign lenders and the extent of Turkish policy changes. On January 24, the Turkish authorities announced a further devaluation of the lira of about 35% which moved the real effective rate to a much more realistic level. This could well pave the way for drawing the second tranche of the IMF standby arranged in mid-1979. Additional measures may be forthcoming.

The exchange-rate actions already taken by some of these countries could serve as stimuli to others with large external imbalances and overvalued exchange rates, particularly where it is feasible to implement appropriate supporting measures. There also may be increased resort by non-oil LDCs to assistance from the IMF. The past policy actions and those to come should appreciably reduce the LDCs' resort to new borrowing abroad although, as noted in the following discussion of international credit markets, those countries' aggregate financing needs will remain large in 1980.

Developments in the international credit markets

The volume of publicized gross new borrowings in the international

Table 3

Publicized new international bond issues and medium-term Euro-currency bank credits

in billions of dollars

	1978	1799
New international bond issues		
Euro-bond issues	14.1	18.7
U.S. dollar	7.3	12.6
German mark	5.3	3.6
Other currencies	1.5	2.5
Foreign bond issues	20.2	22.3
U.S. market	5.8	4.5
Swiss market	5.7	9.8
German market	3.8	5.4
Japanese market	3.8	1.8
Other markets	1.1	0.8
Gross new bond issues	34.3	41.0
Minus bank borrowings	—2.7	—4.6
Minus estimated repayments	—8.0	—10.0
Net new bond issues	23.6	26.4
Gross new Euro-currency bank credits	70.2	82.3
Minus advance refinancings	—8.8	—13.8
Minus estimated repayments	—24.0	—30.0
Net new Euro-currency bank credits	37.4	38.5
Summary		
Total gross new bonds and credits	104.5	123.3
Minus estimated repayments, refinancings, and bank borrowings	—43.5	—58.4
Total estimated net new bonds and credits	61.0	64.9

credit markets expanded by 18% to more than $123 billion in 1979 from the previous year's total of more than $104 billion (see Table 3). These totals are composed of gross new issues of international bonds amounting to $41 billion in 1979 versus $34 billion in 1978, and gross new medium-term Euro-currency bank credits amounting to $82 billion versus $70 billion in 1978. However, if these gross amounts are netted to take account of estimated repayments, refinancings, and double counting, last year's growth in net new borrowing was only marginal.

Although growth was less impressive than in 1978, last year was another bumper year for the Euro-currency bank credit market. In addition, the Euro-bond segment of the international bond issue market expanded to a record-breaking total of $18.7 billion from the previous mark set in 1977 of $17.8 billion, and foreign bond issues in the Swiss market climbed to a new high of $9.8 billion.

After certain pertinent adjustments are made to the gross borrowing figures, however, there was at best only marginal growth in last year's total borrowings in the international credit markets. The gross total of publicized new borrowings includes funds raised in the international bond market — $4.6 billion in 1979 and $2.7 billion in 1978 — by commercial banks that are active lenders in the Euro-credit market. In addition, the Euro-currency bank credit totals included substantial amounts — nearly $14 billion in 1979 and close to $9 billion in 1978 — of loans refinanced prior to their scheduled maturities, as borrowers took advantage of favorable conditions to secure lower spreads and/or to extend the maturities of existing credits. In addition, there were estimated repayments of maturing debt of $10 billion in the international bond market and of close to $30 billion in the Euro-loan market last year. Allowing for these factors, a total of about $65 billion was raised via estimated net new bonds and credits in 1979 compared with $61 billion the previous year when similar adjustments are made. If allowance also is made for inflation, the volume of net new financing in the international credit markets last year was slightly less than in 1978.

It should be noted that foreign bank loans in domestic currencies are excluded from these totals. Preliminary figures indicate a sizable increase in this type of bank credit, notably by banks in the United States. Data through September 1979 indicate an increase of about $14 billion from the end of 1978 in outstanding claims on unaffiliated foreigners reported by banks in the United States. In addition, Japanese banks extended additional yen-denominated loans to foreigners of more than $3.5 billion equivalent during 1979. Banks in Germany, however, increased their mark claims on foreigners by less than $1 billion equivalent in the first ten months of last year.

Major borrowers

Table 4 shows gross new borrowings in the international credit markets by country of borrower. Figures also are shown net of bonds issued by commercial banks for the purpose of funding their international lending operations, and net of bank credits for refinancing of existing loans prior to maturity. The discussion of borrowers that follows is based on these partially netted figures. Data on estimated repayments of loans and bonds at maturity are not available on a country-by-country basis and therefore have not been netted out.

Net new borrowing by the industrial

Table 4

Publicized new international bond issues and medium-term Euro-currency bank credits by country of borrower

in billions of dollars

	Gross borrowings		Bank borrowings		Advance refinancings		Net borrowings[a]	
	1978	1979	1978	1979	1978	1979	1978	1979
Industrial countries	53.9	58.0	2.7	4.6	5.7	6.1	45.5	47.3
United States	4.2	8.2	0.6	0.9	0.1	0.1	3.6	7.3
Canada	10.5	6.0	—	0.1	0.7	1.2	9.8	4.7
Spain	2.7	4.6	—	—	0.3	0.3	2.4	4.3
Japan	3.5	5.8	1.1	1.8	—	—	2.4	4.0
Italy	2.7	4.0	—	0.1	0.0	0.2	2.7	3.7
France	3.2	5.1	0.3	0.5	—	1.6	2.9	3.0
Norway	4.3	2.9	—	0.0	0.1	0.3	4.2	2.6
Sweden	2.7	2.7	—	—	1.0	0.2	1.7	2.5
United Kingdom	5.3	2.0	0.3	0.6	1.7	—	3.3	1.4
Yugoslavia	1.1	2.2	—	—	—	1.1	1.1	1.1
Others	13.7	14.5	0.4	0.6	1.8	1.1	11.5	12.8
Non-OPEC LDCs	29.6	38.1	—	—	1.6	6.3	28.1	31.8
Mexico	7.8	8.7	—	—	0.2	0.7	7.6	8.0
Brazil	6.5	7.2	—	—	0.1	0.8	6.4	6.4
Argentina	1.7	3.5	—	—	—	—	1.7	3.5
Korea	2.7	3.3	—	—	—	0.2	2.7	3.1
Philippines	2.2	2.2	—	—	0.2	0.6	2.0	1.6
Malaysia	1.0	1.2	—	—	0.4	—	0.6	1.2
Taiwan	0.3	1.1	—	—	—	—	0.3	1.1
Turkey	0.1	3.0	—	—	—	2.6	0.1	0.4
Others	7.3	7.9	—	—	0.7	1.4	6.6	6.5
OPEC countries	12.0	13.4	—	—	1.5	1.0	10.5	12.4
Venezuela	2.6	7.4	—	—	0.2	0.4	2.4	7.0
Algeria	3.3	2.1	—	—	—	—	3.3	2.1
Nigeria	0.8	1.4	—	—	—	—	0.8	1.4
Indonesia	1.2	1.1	—	—	0.6	0.4	0.6	0.7
Others	4.1	1.4	—	—	0.7	0.2	3.4	1.2
Communist countries	3.8	7.6	—	—	—	0.2	3.8	7.4
China	—	3.6	—	—	—	—	—	3.6
Poland	0.4	0.9	—	—	—	—	0.4	0.9
East Germany	0.6	0.8	—	—	—	—	0.6	0.8
Hungary	0.7	0.3	—	—	—	—	0.7	0.3
Others	2.1	2.0	—	—	—	0.2	2.1	1.8
International organizations	5.2	6.2	—	—	—	0.2	5.2	6.0
Total	104.5	123.3	2.7	4.6	8.8	13.8	93.1	104.9

a Gross borrowings minus bank borrowings and advance refinancings

countries posted a marginal gain of only about 4% to $47.3 billion in 1979, compared with $45.5 billion in the previous year. The United States was the largest borrower in 1979, raising $7.3 billion of new funds. This was more than twice as much as raised the previous year. However, it should be emphasized that last year's total included close to $4 billion of "Carter" bonds issued in the German and Swiss markets, compared with more than $1.5 billion issued in the German market at the end of 1978. Publicized borrowings by U.S. companies increased to about $3.3 billion last year from $2.1 billion the previous year. Canada was the next-largest borrower, raising $4.7 billion, but this was only about half of the amount borrowed in the previous year when the federal government obtained $5.5 billion in new credits. Spain continued to borrow at a heavy pace during the year by arranging $4.3 billion of new funds, which was a substantial increase from the 1978 total of $2.4 billion. Japan increased its borrowings in the international capital markets as many private companies took advantage of favorable terms, notably available in the Swiss and German markets, to raise $4 billion in the year, up from $2.4 billion borrowed in 1978. Norway cut its borrowing to $2.6 billion in 1979 from $4.2 billion the previous year as a consequence of a diminishing current account deficit brought on largely by swelling North Sea oil revenues. The United Kingdom also reduced its borrowings, to $1.4 billion of new funds compared with $3.3 billion in 1978, as Britain's receipts from North Sea oil sales likewise climbed sharply and as large inflows of funds into sterling occurred.

Non-OPEC less-developed countries called on the international credit markets for nearly $32 billion last year, apart from $6.3 billion in credits refinanced prior to maturity. This was about $4 billion more than the previous year, when identifiable refinancings amounted to only $1.6 billion. Most non-OPEC LDCs experienced deteriorating current account balances last year, partly because of oil price increases during the year. In addition to financing their payments deficits, these countries as a group also

added about $6 billion to their foreign exchange reserves in the first ten months of 1979.

Mexico and Brazil were the two largest non-OPEC LDC borrowers, together accounting for $14.4 billion net of refinancings during the year, slightly more than they raised the previous year. The most significant increases in LDC borrowing were for Argentina, which obtained $3.5 billion of new funds, compared with $1.7 billion in 1978, and Taiwan, which borrowed $1.1 billion during 1979 and $300 million the previous year. In both cases, lenders were encouraged by the relatively favorable performance of their economies, particularly their current account surpluses. The Philippines decreased the level of its borrowing net of refinancing to $1.6 billion in 1979 from $2 billion the year before, partly as a consequence of borrowing limits imposed by the International Monetary Fund. Turkey raised $3 billion last year, but only $400 million was in new funds as commercial banks rescheduled $2.6 billion of existing short-term external debt.

The OPEC countries borrowed about $12.4 billion in 1979 net of refinancing, compared with $10.5 billion the previous year. Venezuela, one of the few OPEC countries in deficit last year, was the largest OPEC borrower, raising about $7 billion of new funds. State agencies converted their obligations under existing lines of credit from international commercial banks into formal Euro-loans. The majority of Venezuela's new borrowings was at relatively short maturities (i.e., between one and three years) because legislative approval had not been granted for longer-term borrowing. With such approval expected later this year, some of these shorter-term borrowings are likely to be rolled over into longer maturities during the next few years.

If the borrowings of Venezuela are excluded from the OPEC total, there was a decrease of almost $3 billion in new funds borrowed. The large oil price increases during the year — nearly 120% from the end of 1978 on an effective basis (including spot transactions) — resulted in a surge in the aggregate OPEC current account surplus after transfers to more than $60 billion in 1979 from near equilibrium the previous year. Iran did not raise any new funds during the year. Algeria, which still had a current account deficit last year, reduced its borrowings to $2.1 billion from the record-setting $3.3 billion in 1978. Nigeria, however, took advantage of its improved external financial position to raise $1.4 billion of new funds last year, up from the $800 million borrowed in the previous year.

Communist countries raised more than $7.4 billion of new funds last year, compared with $3.8 billion in 1978. All of the increase was accounted for by the People's Republic of China, which entered the Euro-market for the first time. The Soviet Union was completely absent from the international credit markets last year. The Soviet stance was influenced by its increasing oil exports to Western Europe and the rapid increase of gold prices, both of which gave Russia more than enough foreign exchange to cover import costs and to even repay some debts ahead of schedule. Poland raised $900 million during the year, compared with $400 million in 1978. It should be noted that the Polish government for the first time supplied some detailed statistical data and projections to Western lending institutions.

International bond market

New issue volume in the interna-

tional bond market reached $41 billion last year, compared with $24 billion in 1978. The share of the total denominated in dollars increased to 42% from 38% in 1978. The proportion of debt issues denominated in Swiss francs increased to 24%, compared with 17% the previous year. The market share of bonds in German marks declined to 22% from over 26% in 1978. The largest drop was posted by yen bond issues — to only 4% from more than 11% a year earlier (see Statistical Appendix).

Gross new issues of Euro-bonds increased by $4.6 billion to $18.7 billion last year. All of this gain was in dollar-denominated debt of $12.6 billion, which was up from $7.3 billion a year ago. The greater role of dollar issues to some extent reflected the improved performance of the dollar in foreign exchange markets. A large portion of the increased Euro-dollar issues was in the form of floating-rate certificates of deposit and notes that were offered to attract funds under conditions — accelerating inflation and rising interest rates — that made longer-term fixed rate securities relatively unattractive to investors.

New foreign bond issues in domestic markets increased to more than $22 billion in 1979 from $20 billion the previous year. Foreign bonds issued in the Swiss domestic market increased to $9.8 billion last year from $5.7 billion in 1978. Much of this expansion resulted from borrowers taking advantage of low interest rates and high liquidity in the Swiss market. The lifting of the limitations on nonresident purchases of Swiss franc securities and the increased redemptions of outstanding debt, both scheduled and pre-maturity, also enlarged the absorptive capacity of the Swiss money market. The sharp rise in issue volume occurred despite a temporary suspension of activity to alleviate market congestion during the second quarter.

Foreign bond issues in the German market expanded to $5.4 billion from $3.8 billion issued a year earlier. This increase was largely accounted for by U.S. Treasury issues of Carter bonds in February and again in November, totaling the equivalent of $2.55 billion.

Activity in the Yankee bond market (i.e., foreign dollar bonds issued in the United States) declined to $4.5 billion last year from close to $6 billion in 1978. There was a reduction of new issues by both Canadian and European borrowers.

The volume of new Samurai bond issues (i.e., foreign yen bonds issued in Japan) declined to $1.8 billion in 1979 from the record high of $3.8 billion a year earlier. The sharp fall in the volume of new yen issues resulted partly from the fact that in the first part of 1979 yen borrowing costs exceeded those in both the German and Swiss markets. In the latter part of 1979, difficult market conditions in the face of heavy government deficit financing and tightening monetary policy, combined with official restraints on the volume of Samurai bond issues to curb capital outflows and to halt the weakening of the yen, contributed to a sharp fall in new yen issues by foreign borrowers.

The Euro-currency credit market

Gross new commitments of funds by commercial banks in the medium-term Euro-currency loan market expanded to more than $82 billion last year from $70 billion in 1978. Much of this expansion reflected credits for non-OPEC developing countries, which increased their share of gross new Euro-loan facilities to a record-high 43% from 38% the previous year. Borrowing by industrial countries declined to 32% of total

Table 5

Average loan rate spreads on new Euro-currency bank credits to governments and state enterprises in selected countries[a]

spreads in percentage points over LIBOR

	1978		1979			
	Q3	Q4	Q1	Q2	Q3	Q4
Industrial countries						
Denmark	0.75	0.77	0.69	—	0.50	0.68
Finland	—	0.75	0.75	—	0.59	0.59
France	0.50	0.50	0.46	0.50	0.45	0.42
Ireland	—	—	—	0.62	0.50	—
Italy	0.95	0.84	0.74	0.64	0.60	0.59
Spain	0.94	0.77	0.78	0.69	0.74	0.55
Sweden	0.74	0.62	0.58	0.50	0.62	0.47
Non-OPEC LDCs						
Argentina	0.86	0.88	0.78	0.75	0.65	0.65
Brazil	1.29	1.20	1.10	0.97	0.78	0.72
Korea	0.96	0.92	0.74	0.72	0.74	0.75
Malaysia	—	0.95	—	0.56	—	0.57
Mexico	0.96	0.87	0.75	0.72	0.66	0.74
Philippines	1.01	0.91	0.93	1.00	1.00	0.78
OPEC countries						
Algeria	1.35	1.14	0.92	1.13	1.01	0.87
Indonesia	—	0.81	—	0.82	0.67	—
Iran	0.72	—	—	—	—	—
Venezuela	0.88	0.97	0.66	0.75	0.45	0.39
Communist countries						
Bulgaria	0.81	—	—	0.62	0.72	—
East Germany	—	0.70	0.74	0.62	0.56	0.50
Hungary	0.69	0.66	0.70	—	0.56	—
Weighted averages						
7 industrial countries	0.81	0.68	0.68	0.59	0.60	0.49
6 non-OPEC LDCs	1.06	0.94	0.86	0.78	0.73	0.68
4 OPEC countries	0.94	1.04	0.76	0.85	0.57	0.43
3 communist countries	0.75	0.68	0.74	0.62	0.62	0.50
TOTAL: 20 selected countries	0.96	0.86	0.80	0.72	0.64	0.56

a Average loan rate spreads over London interbank offered rates (LIBOR) are calculated by weighting the average spread on each loan by the size of the loan. The average spread on an individual loan with a split spread is calculated by weighting each spread by the number of years it is in effect.

Table 6

Average final maturities on new Euro-currency bank credits to governments and state enterprises in selected countries[a]

maturities in years

	1978		1979			
	Q3	Q4	Q1	Q2	Q3	Q4
7 industrial countries	7.5	9.1	8.8	10.1	9.5	9.9
6 non-OPEC LDCs	9.4	9.6	9.6	9.2	9.8	10.7
4 OPEC countries	8.2	8.2	5.8	8.3	6.1	3.9
3 communist countries	8.1	7.6	7.0	7.0	8.8	8.0
TOTAL: 20 selected countries	8.6	8.9	8.4	9.3	8.4	8.8

a the selected countries in each group are the same as those listed in Table 3. Average final maturities are calculated by weighting the final maturity on each loan by the size of the loan.

new loans from 41% in 1978. Communist country borrowers increased their share of the total to over 9% in 1979 from over 5% the previous year on account of China's entry into the market.

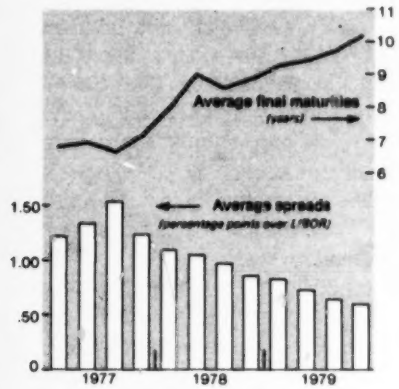
The Euro-currency credit market in 1979 was characterized by a further lowering of lending spreads over the London interbank offer rate (LIBOR) and by a lengthening of maturities for most borrowers (see chart). These trends, which had their origins in late 1977, continued through most of last year. It was only toward the end of 1979 that borrowers began to experience effective resistance by banks to continued lending on such favorable terms to the borrower.

The minimum spread remained in the ⅜%-½% range during 1979. However, many more borrowers either secured the minimum or obtained terms closer to the minimum. While French public-sector entities continued to borrow at the minimum spreads of ½% or lower, many other countries — for example, Italy, Spain, Argentina, Brazil, Malaysia, and East Germany — were able to bring their borrowing spreads closer to the minimum (see Table 5). The weighted average spread for the twenty selected countries shown in the table declined from about 1% in the third quarter of 1978 to approximately ½% at the end of 1979. The differentials in spreads between borrowers of differing credit quality became very small.

Average final maturities on new Euro-loans lengthened further throughout the year. Table 6 shows an increase in average maturities for industrial countries to almost 10 years in 1979 compared with 7½ years prevailing as recently as the third quarter of 1978. The non-OPEC developing countries were able to increase the average final maturity of new loans to nearly 11 years by

Terms on new Euro-loans

***based on average final maturities and loan rate spreads on new medium-term Euro-currency bank credit facilities for public-sector entities in twenty selected countries**



*Countries included are the same as those in Table 3. Figures for 1979 do not include the one-to-three-year loans extended to Venezuela.

the end of 1979 from the 9½-year figure in the second half of 1978. The drop in the average final maturities of OPEC loans exhibited in the table resulted entirely from the large volume of credits with one-to-three-year maturities obtained by Venezuela last year, as discussed earlier. If these credits are excluded, the average maturity for OPEC countries would be in the 9-10-year range for 1979.

A number of borrowers took advantage of these opportune market conditions to secure more favorable terms on existing loans prior to their scheduled maturities. In 1979 borrowers raised $13.8 billion in Euro-loans to refinance or restructure their existing credits, compared with $8.8 billion the previous year.

The outlook

Borrowing demands in the international credit markets are likely to be strong this year. Balance-of-payments financing requirements are expected to increase in both industrial countries and non-OPEC developing countries. As a consequence of the sharp rise in oil prices, the combined current account surplus after official transfers of OPEC members may reach $90 billion in 1980, from more than $60 billion last year and virtual equilibrium in 1978. The counterpart to this growing surplus will be a widening of the payments deficits of most oil-importing countries, which will require financing.

The aggregate current account deficit of industrial countries is projected to increase by more than $28 billion, to approximately $50 billion, this year. While much of this anticipated deterioration is expected to be borne by the seven largest industrial nations, the current account deficits of the smaller European countries (excluding Norway and Switzerland) could widen by as much as $7 billion this year. Non-OPEC developing countries are likely to experience a combined $60 billion current account deficit before transfers this year, up from more than $45 billion in 1979. Some LDCs may be able to draw on their reserves, which they have built up steadily over the past few years, to cover part of their financing requirements, but many will be looking to the international credit markets to finance a major portion of their deficits. Since 1973, banks have provided approximately half of non-OPEC LDCs' net external financing requirements.

In addition to financing current account deficits, a number of countries also face the necessity of rolling over large amounts of existing external debt coming due this year. Brazil, for example, in addition to facing a possible current account deficit of more than $11 billion, has maturing external debts of approximately $7 billion.

Although real economic growth is expected to slow in the industrial world, there will continue to be large financing requirements connected with investment activities, such as energy-related projects. It is anticipated that capital investment in nominal terms will expand substantially even if growth in real terms is moderate. Slow growth may squeeze corporate profits, thereby forcing increased recourse to outside sources of funds for financing capital outlays.

The international markets — being in many instances either extensions of, or closely tied to, domestic markets in the same currency — have not been insulated from the general rise in the cost of borrowing that has characterized many domestic money and capital markets. However, various quantitative restrictions on domestic credit expansion in some industrial coun-

tries could induce borrowers in those countries to seek financing in the international markets. In the United Kingdom, for example, the "corset" limits the ability of banks to fund additional lending. In Japan, "window guidance" restricts the growth of bank credit. Other countries, such as France, impose credit ceilings on domestic banks.

There are a number of questions about how the international credit markets, particularly the banks, will respond to the anticipated strong credit demands. The banks will again be called upon to play a role in recycling the OPEC surplus, the magnitude of which is large in absolute terms.

Since the end of 1973, OPEC countries have increased their deposits (in both domestic and Euro-currencies) in international banks by an amount equivalent to about two fifths of their cumulative cash surplus available for investment, with the proportion in any single year ranging between approximately 30% and 50%. If a similar proportion were to be placed in banks this year, the increase in OPEC deposits could amount to roughly $30-$40 billion.

In the context of the combined balance sheets of the major international banks that would be the likely recipients of OPEC deposits, this is not a particularly large amount. For example, the combined deposits of the world's 100 largest commercial banks exceeded $3 trillion at the end of last year, and the gross size of the Euro-currency market exceeded $1 trillion. However, a $30-$40 billion increase in OPEC deposits in banks would represent a very large increment to OPEC countries' existing holdings of bank deposits, which totaled $87 billion as of mid-1979, and probably have increased since then.

Another constraint on the banks' role may be concern about their capital adequacy. U.S. banks have experienced a considerable decline in their capital/asset ratios in recent years. The ratios of many of the European and Japanese banks that were so aggressive internationally in the past two or three years also have declined. Thus, the ability of banks to increase their capital bases may limit their capacity to expand their international lending. Japanese banks also are likely to be limited, at least in the near term, by the continuation of official constraints on their yen and foreign-currency lending to foreigners. Nevertheless, there are still some sizable banks that have not been very active participants in the international markets to date.

The perceptions of the risks involved in international lending also are changing somewhat. Several developments have contributed to a more cautious stance on the part of lenders. Recent international political and military developments in the Middle East and elsewhere have had an unsettling effect. The prospect of greatly enlarged payments deficits and the existence of heavy external debt servicing burdens for a number of countries is likely to engender more selectivity on the part of the banks. Moreover, some banks undoubtedly have fairly heavy concentrations of individual country risk in their loan portfolios, so that the desire for diversification could limit their willingness to lend to some countries.

Under these conditions it is likely that credit terms will stiffen. Spreads probably will widen to take better account of the differential risks involved, and maturities of new Euro-currency credits are likely to shorten. Indeed, there are signs that such trends are already underway.

Assessments of risk, of course, will be influenced by the extent to which potential borrowers take prompt and effective corrective

measures to contain their payments deficits and turn to the IMF for assistance without waiting for conditions to deteriorate to the crisis stage. Brazil and Korea, as noted earlier, have taken steps recently, including exchange rate adjustments, aimed at curbing their external payments deficits. The Philippines and Thailand are in the midst of negotiations with the IMF on adjustment programs and assistance. Such actions will tend to reassure lenders and keep open the access of such countries to the international credit markets.

Statistical appendix

for key to data in tables see pages 22 and 23

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
February	98.1	82.2	126.4	69.0	135.6	90.4	54.9	111.9	119.9	166.9	117.4	103.3	101.9	87.0	74.1	74.4
March	97.9	83.8	122.7	70.4	135.5	90.2	54.9	111.4	119.9	166.5	117.2	102.4	102.1	87.1	73.8	74.9
April	98.3	86.0	117.4	72.5	134.5	89.8	55.5	110.5	118.9	164.8	116.5	101.7	102.2	87.5	74.0	76.8
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89 9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
7	99.0	84.4	101.7	73.5	140.4	91.0	54.3	110.5	119.4	168.2	121.7	95.0	101.7	88.1	74.3	75.7
14	98.4	84.3	104.9	73.6	140.0	90.9	54.3	110.3	119.8	167.5	121.6	94.4	101.4	88.1	74.2	75.2
21	98.7	83.7	104.3	73.8	140.0	91.2	54.4	110.4	119.8	167.0	121.6	94.7	101.2	88.0	74.1	75.2
28	98.5	83.6	103.8	74.3	140.1	91.5	54.4	110.3	119.6	167.6	121.6	94.5	101.1	88.1	74.1	75.2
1980																
January 4	98.0	83.9	104.2	74.4	140.2	91.2	54.4	110.6	119.8	167.9	121.6	94.0	101.5	88.0	73.9	75.1
11	97.6	83.9	105.5	75.2	140.1	91.1	54.3	110.4	119.6	167.9	121.6	93.6	101.3	87.8	73.7	75.0
18	97.9	84.3	103.8	76.0	140.0	91.0	54.4	109.6	119.6	167.1	121.7	93.3	101.7	87.9	74.0	75.2

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.1	106.7	89.0	96.6	101.2	100.0	92.6	97.9	101.8	110.8	106.1	96.1	99.0	109.0	101.6	105.0
1977	99.8	99.8	94.7	101.5	102.5	96.1	95.5	99.7	103.8	105.2	109.2	97.3	99.7	105.1	91.6	100.7
1978	95.2	92.8	108.8	106.3	103.3	96.7	93.8	99.6	103.6	121.7	109.2	103.5	95.4	96.5	86.9	96.9
1979	95.2	92.6	97.6	118.4	104.1	98.9	93.4	97.1	100.3	115.2	107.8	102.4	90.1	99.1	85.4	109.0
1979																
January	94.4	90.5	107.7	107.8	104.8	98.5	92.4	99.7	103.7	118.0	109.6	105.3	92.8	95.9	85.4	101.3
February	94.6	91.0	106.2	108.7	104.6	98.3	92.3	99.4	103.4	118.2	109.1	103.4	91.7	97.5	85.8	103.0
March	94.3	92.8	103.2	111.2	104.6	98.3	92.4	98.8	102.7	117.6	108.2	103.5	91.7	97.4	85.7	105.0
April	94.7	95.5	98.6	115.6	103.4	98.1	93.7	97.7	101.6	115.7	107.1	101.8	92.1	97.8	85.6	108.8
May	95.7	94.7	98.0	116.5	103.4	98.0	93.7	96.7	100.5	115.2	106.4	99.8	91.7	99.2	85.8	113.2
June	95.9	92.8	97.6	119.8	103.7	98.2	93.1	96.3	99.5	116.8	106.1	98.7	90.4	100.0	85.3	112.3
July	94.1	92.6	97.7	127.5	103.7	98.2	93.1	96.6	98.1	115.6	106.3	100.2	88.2	99.9	84.9	111.9
August	94.5	92.2	97.7	126.6	103.2	98.4	94.1	95.9	99.0	113.7	106.3	101.8	88.3	100.5	85.7	112.4
September	94.4	93.1	95.6	123.3	103.7	98.9	94.5	95.7	99.4	115.2	108.0	103.7	88.8	100.2	85.7	111.5
October	96.7	92.6	92.0	121.0	104.3	99.6	93.8	95.8	98.6	113.2	108.9	103.3	89.7	100.0	86.0	111.8
November	97.6	92.1	87.4	120.5	105.3	100.4	93.9	95.8	98.5	111.6	109.4	103.0	88.6	100.8	86.5	110.8
December	95.7	93.3	88.8	122.3	105.2	101.3	94.4	94.9	99.2	111.9	109.3	100.8	87.3	100.7	86.1	109.7

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976r	1977r	1978r	1979		
									Mar	Jun	Sep
Estimated size											
Gross	145	200	305	375	460	565	695	895	895	965	1070
Liabilities to nonbanks	30	35	55	75	80	100	125	170	185	200	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	125	130	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	585	635	n.a.
Net	85	110	160	215	250	310	380	485	500	530	600
Claims on nonbanks	35	45	65	100	115	150	195	245	255	265	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	200	220	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	45	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	74	73	n.a.

a Includes unallocated liabilities
b Includes unallocated claims
c In European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Euro-dollar:											
overnight	4.63	7.12	10.62	10.00	10.37	10.75	11.25	11.75	14.25	12.87	14.00
7-day fixed	4.75	6.31	10.62	10.12	10.50	10.87	11.37	11.87	14.37	13.00	14.00
one month	5.13	6.87	11.00	10.25	10.81	10.94	11.75	13.00	15.06	13.56	14.37
three months	5.00	7.19	11.69	10.44	10.50	11.31	12.12	12.75	15.69	14.00	14.44
six months	5.38	7.50	12.31	10.62	10.50	11.12	12.12	12.75	15.31	13.94	14.44
twelve months	5.56	7.67	12.00	10.44	10.19	10.81	11.69	12.19	14.25	12.87	12.87
Euro-mark:											
one month	4.62	2.19	3.19	5.62	6.12	6.19	7.25	7.19	8.12	9.12	8.50
three months	4.69	2.50	3.31	6.12	6.19	6.50	7.44	7.44	8.94	8.81	8.56
six months	4.75	2.81	3.69	6.75	6.62	6.94	7.62	7.50	8.87	8.62	8.56
twelve months	4.81	3.06	3.81	7.06	6.87	6.94	7.62	7.50	8.62	8.00	8.12
Euro-Swiss franc:											
one month	0.94	1.31	—.06	1.75	0.94	1.31	1.87	1.06	2.94	4.25	5.19
three months	1.44	1.37	0.00	1.94	0.19	1.44	1.00	1.75	4.00	4.50	5.75
six months	2.12	1.87	0.12	2.75	1.81	2.31	2.69	2.00	4.50	4.62	5.87
twelve months	2.50	2.25	0.62	3.12	2.12	2.56	2.94	2.37	4.12	4.50	5.56
Euro-sterling:											
one month	16.37	6.50	12.00	11.75	14.25	14.75	14.37	13.87	14.37	16.00	16.75
three months	16.12	6.62	12.62	11.75	14.00	14.75	14.25	14.06	15.12	16.50	16.75
six months	14.75	7.12	13.25	11.56	13.44	14.12	14.25	14.06	15.00	16.25	16.75
twelve months	14.50	7.37	13.00	11.37	12.62	13.25	13.75	13.50	14.56	15.12	15.25
Euro-French franc:											
one month	12.37	12.25	10.50	11.37	10.75	11.94	11.87	13.12	13.12	13.12	13.87
three months	12.62	13.25	9.87	11.37	11.00	12.06	12.44	13.25	14.00	13.62	14.00
six months	12.62	14.00	9.87	11.50	11.37	12.50	12.94	13.37	14.00	13.62	14.12
twelve months	12.50	13.25	10.25	11.50	11.37	12.25	12.94	13.31	13.87	13.62	13.75
Euro-yen:											
one month	7.00	0.62	—.69	4.62	4.69	6.00	6.87	6.87	5.87	8.50	7.62
three months	6.62	1.81	0.62	5.25	5.75	6.00	7.00	7.31	7.94	8.75	8.31
six months	6.44	2.75	1.87	5.69	6.06	6.37	7.00	7.19	8.06	8.44	8.62
twelve months	6.25	3.25	2.19	6.19	6.12	6.50	7.00	7.00	7.56	7.56	7.94

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	1978	1979	1979			Jan	
				Oct r	Nov r	Dec r	1980 p	1979
Industrial countries	**17 205**	**28 952**	**26 081**	**3 384**	**4 773**	**1 390**	**697**	**1 928**
Canada	3 292	5 705	1 845	—	1 250	—	—	300
Denmark	868	2 242	1 205	90	—	—	—	250
Finland	314	550	92	12	—	—	—	50
France	2 325	1 915	2 955	1 090	100	120	—	—
Greece	204	509	1 010	245	90	35	—	—
Ireland	440	616	687	—	—	—	—	—
Italy	1 024	2 485	3 698	23	320	550	235	165
Japan	112	27	—	—	—	—	—	—
Norway	182	1 517	914	60	16	50	27	161
Spain	1 973	2 426	4 159	1 052	150	90	181	199
Sweden	1 446	1 872	1 143	20	800	—	46	—
United Kingdom	1 992	3 899	795	100	17	—	—	270
United States	826	1 206	1 423	172	13	—	78	356
Others a	2 207	3 983	6 155	520	2 017	545	130	177
Developing countries	**20 976**	**37 300**	**48 444**	**5 430**	**3 258**	**2 804**	**758**	**4 214**
Non-OPEC countries	13 494	26 902	35 456	3 718	2 704	2 264	544	3 160
Argentina	849	1 461	2 965	320	310	233	—	839
Brazil	2 814	5 634	6 268	1 469	568	30	—	355
Chile	591	1 045	867	295	30	60	—	—
Korea	1 265	2 651	3 258	50	141	556	200	128
Malaysia	212	858	1 068	550	200	200	—	—
Mexico	2 727	7 250	8 288	597	475	185	—	774
Morocco	797	605	500	—	—	—	—	—
Peru	189	—	596	45	8	65	—	—
Philippines	698	2 073	2 067	207	429	145	100	—
Taiwan	524	255	1 143	15	—	77	—	80
Others b	2 828	5 070	8 436	170	543	713	244	984
OPEC countries	7 481	10 398	12 988	1 712	554	540	214	1 054
Algeria	723	2 576	1 861	—	230	—	—	514
Indonesia	817	1 118	1 061	29	—	—	24	38
Iran	1 220	1 107	—	—	—	—	—	—
United Arab Emirates	1 086	726	401	—	—	—	—	—
Venezuela	1 666	2 054	7 310	1 510	220	510	70	466
Other	1 969	2 817	2 355	173	104	30	120	36
Communist countries	**3 394**	**3 767**	**7 525**	**274**	**233**	**258**	—	**150**
China	—	—	3 595	120	—	—	—	—
East Germany	832	642	796	—	160	—	—	150
Hungary	300	700	260	—	—	—	—	—
Poland	19	374	849	14	73	—	—	—
Others c	2 243	2 051	2 025	140	—	258	—	—
International organizations	**190**	**160**	**275**	—	—	—	—	—
TOTAL	**41 765**	**70 179**	**82 325**	**9 088**	**8 264**	**4 452**	**1 455**	**6 292**

a includes multi-national organizations *b* includes regional development organizations *c* includes COMECON institutions *p* preliminary *r* revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	8.72	8.79	8.83	8.99	9.27	10.10	10.07	10.13
Swiss franc	5.46	5.31	5.70	6.11	6.11	6.12	6.16	6.20	6.48	6.54	6.61
European companies:											
U.S. dollar	8.56	8.42	9.21	9.25	9.29	9.45	9.65	9.86	10.79	10.76	10.93
German mark	7.38	6.80	6.84	7.26	7.25	7.08	7.13	7.16	7.40	7.46	7.55
Governments:											
U.S. dollar	8.90	8.42	9.12	9.16	9.18	9.25	9.43	9.49	10.41	10.57	10.66

New international bond issues

new issues in period, in millions of dollars

	1977	1978	1979	1979			Jan	
				Oct	Nov	Decr	1980	1979
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**1 018**	**804**	**1 294**	**658**	**1 810**
by category of borrower								
U.S. companies	1 130	1 122	2 872	30	300	175	114	55
Foreign companies	7 347	4 540	7 183	436	355	713	125	749
State enterprises	4 667	3 291	4 524	371	92	16	195	514
Governments	2 936	3 643	2 433	—	—	160	184	220
International organizations	1 691	1 529	1 714	181	57	230	40	272
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	640	655	1 118	185	879
German mark	4 131	5 251	3 626	271	114	87	290	813
Dutch guilder	452	394	531	13	—	—	39	38
Canadian dollar	555	—	425	—	—	—	—	—
European unit of account	28	165	253	—	35	73	—	—
Other	878	1 025	1 326	94	—	16	144	80
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**1 210**	**2 211**	**1 345**	**1 876**	**1 797**
by category of borrower								
U.S. companies	40	245	217	—	—	—	—	—
Foreign companies	1 421	2 110	3 463	179	215	167	82	159
State enterprises	2 427	3 163	3 284	354	611	243	148	38
Governments	2 043	5 771	7 663	430	1 263	186	1 365	1 471
International organizations	2 846	3 070	3 122	247	122	749	283	129
by currency of denomination								
German mark	2 181	3 789	5 379	228	1 746	447	1 551	206
Swiss franc	4 970	5 698	9 777	629	359	418	223	1 509
Dutch guilder	211	385	75	75	—	—	—	—
Japanese yen	1 271	3 826	1 833	261	61	249	—	61
Other	144	671	685	17	45	231	102	21
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**215**	**398**	**—**	**550**	**838**
by category of borrower								
Canadian entities	3 022	3 142	2 193	215	—	—	300	518
International organizations	1 917	459	1 100	—	125	—	250	100
Other	2 489	2 194	1 222	—	273	—	—	220
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**1 762**	**3 086**	**1 510**	**2 186**	**3 560**
Australia	1 074	1 218	593	44	—	123	—	—
Austria	1 384	1 027	1 218	128	168	63	125	77
Canada	5 277	4 764	4 197	215	—	87	344	523
Denmark	796	1 018	752	91	166	—	154	110
Finland	358	952	699	73	—	87	39	22
France	1 945	1 286	2 106	158	57	239	196	166
Japan	1 979	3 467	5 775	403	458	202	70	293
Netherlands	682	251	832	58	57	50	—	11
New Zealand	567	744	553	46	57	—	—	127
Norway	1 889	2 751	1 955	122	110	97	145	352
Sweden	1 574	876	1 530	—	267	16	—	—
United Kingdom	1 915	1 365	1 181	125	—	225	—	159
United States	1 353	2 973	6 767	30	1 421	175	1 276	1 268
Developing countries	**3 421**	**4 227**	**3 085**	**253**	**23**	**150**	**25**	**384**
Non-OPEC countries	2 676	2 684	2 667	253	—	130	25	334
Brazil	732	843	930	166	—	72	—	108
Mexico	1 282	568	363	—	—	25	—	165
Philippines	129	170	175	—	—	—	—	—
OPEC countries	745	1 543	418	—	23	20	—	50
Algeria	166	721	208	—	—	—	—	50
Venezuela	438	588	55	—	—	—	—	—
Communist countries	**248**	**30**	**75**	—	—	—	—	—
Hungary	174	—	—	—	—	—	—	—
International organizations	**6 454**	**5 058**	**5 936**	**428**	**304**	**979**	**573**	**501**
TOTAL	**33 976**	**34 279**	**40 982**	**2 443**	**3 413**	**2 639**	**3 084**	**4 445**

Central bank discount rates

	1976	1977	1978	1979				Current	
	end Dec	end Dec	end Dec	end Mar	end Jun	end Sep	end Dec	Jan 21 1980	effective since
United States	5.25	6.00	9.50	9.50	9.50	11.00	12.00	12.00	Oct 8, 79
Canada	8.50	7.50	10.75	11.25	11.25	12.25	14.00	14.00	Oct 25, 79
Japan	6.50	4.25	3.50	3.50	4.25	5.25	6.25	6.25	Nov 1, 79
United Kingdom	14.25	7.00	12.50	13.00	14.00	14.00	17.00	17.00	Nov 15, 79
Belgium	9.00	9.00	6.00	6.00	9.00	9.00	10.50	10.50	Dec 12, 79
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	4.00	4.00	5.00	6.00	6.00	Nov 1, 79
Italy	15.00	11.50	10.50	10.50	10.50	10.50	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	6.50	7.00	8.00	9.50	9.50	Nov 29, 79
Austria	4.00	5.50	4.50	3.75	3.75	3.75	3.75	3.75	Jan 25, 79
Denmark	10.00	9.00	8.00	8.00	9.00	11.00	11.00	11.00	Sep 17, 79
Finland	9.25	8.25	7.25	7.25	7.25	7.25	8.50	8.50	Nov 1, 79
Ireland	14.75	6.75	11.85	11.85	13.70	13.70	16.40	16.40	Dec 7, 79
Norway	6.00	6.00	7.00	7.00	7.00	7.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	6.50	8.00	9.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	1.00	1.00	2.00	2.00	Nov 5, 79
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	14.50	14.50	Jun 13, 78
New Zealand	8.50	10.00	11.00	12.50	13.00	13.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	Dec 12, 74
Singapore	4.00	3.50	4.50	4.50	5.00	5.75	6.75	6.75	Dec 22, 79
South Africa	9.00	9.00	8.50	7.50	7.50	7.00	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

Day-to-day money rates

monthly averages

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	4.65	6.55	9.91	10.23	10.26	10.42	10.88	11.32	13.07	13.64	13.74
Canada	8.66	6.84	9.44	10.88	10.47	11.03	10.96	9.87	12.08	12.18	13.83
Japan	7.11	5.01	4.57	5.12	5.34	5.86	6.73	6.81	6.74	7.61	8.02
Australia	7.17	9.96	8.40	7.57	7.82	8.58	8.74	8.89	8.50	7.86	7.84
United Kingdom	14.56	4.81	10.00	10.80	9.31	12.06	11.66	12.78	11.50	11.75	14.87
Belgium	7.51	7.48	6.73	4.94	7.80	9.66	9.37	8.96	11.49	10.01	10.65
France	10.44	9.30	6.67	7.20	8.01	9.34	10.44	11.00	11.47	11.95	12.17
Germany	5.03	3.24	3.61	5.19	5.62	5.75	6.40	6.70	6.62	7.85	9.15
Italy	16.75	11.37	11.00	11.12	11.25	11.25	11.25	11.25	12.37	12.37	16.00
Netherlands	6.89	5.27	10.00	7.15	7.69	8.81	8.81	9.58	9.41	11.07	15.67
Austria	n.a.	9.25	5.37	5.00	6.25	6.00	5.75	6.50	6.62	6.75	8.50
Finland	14.53	22.99	9.29	8.35	8.35	8.31	8.36	8.68	9.13	12.87	13.53
Ireland	14.81	8.00	12.12	12.88	27.70	15.75	16.12	17.62	16.75	16.75	16.88
Spain	8.03	7.22	16.75	20.93	9.82	13.32	15.34	10.80	8.14	9.84	9.61
Sweden	10.69	8.91	6.26	6.86	7.74	9.16	10.00	9.24	10.75	9.08	11.99
Switzerland	0.50	0.85	0.00	0.75	0.87	0.50	0.87	1.12	0.75	1.50	1.25
Brazil	25.92	28.44	35.64	24.48	23.52	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	4.81	4.87	9.67	12.25	11.25	10.25	12.50	10.37	10.25	10.37	14.19
Korea	14.00	14.40	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11
Philippines	15.46	14.44	13.22	14.66	14.92	14.61	14.56	11.75	10.48	11.69	16.25
Singapore	3.59	3.50	4.98	6.38	6.84	7.11	7.09	6.66	6.40	6.85	10.17
South Africa	7.59	7.65	7.11	5.25	5.15	4.90	4.36	4.12	3.79	3.59	3.81
Euro-dollars	4.66	6.94	10.80	10.25	10.91	10.77	11.34	11.73	13.37	12.70	14.41

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	4.41	6.33	9.42	9.74	8.84	9.42	9.97	10.62	12.37	11.68	12.39
Canada	8.14	7.17	10.46	10.84	10.78	11.25	11.45	11.64	13.61	13.62	13.66
Japan	5.68	4.15	3.39	4.15	4.15	4.15	5.17	5.17	5.17	5.17	5.17
Australia	8.73	8.35	8.35	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.31
United Kingdom	13.98	6.42	12.01	11.78	13.69	13.78	13.78	14.01	13.93	16.75	16.45
Belgium	10.00	9.25	9.25	9.00	11.25	12.00	12.00	13.00	14.00	14.30	14.40
Ireland	14.28	6.74	11.83	11.31	11.67	13.48	13.60	13.56	13.72	16.36	16.37
Italy	17.38	12.61	12.81	10.92	11.51	11.62	11.62	11.62	12.87	12.92	15.75
Netherlands	5.63	6.00	9.50	7.25	7.50	8.75	9.00	9.00	9.50	14.00	12.75
Sweden	9.75	9.21	5.84	5.82	5.82	6.60	6.60	6.60	8.70	9.74	9.74
Brazil	38.58	38.08	41.21	38.39	43.95	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Korea	n.a.	16.88	17.01	17.01	17.01	19.53	19.53	19.53	19.53	19.53	19.53
Mexico	n.a.	n.a.	12.75	14.29	14.45	14.89	15.32	15.58	15.95	16.85	n.a.
New Zealand	4.00	7.50	10.50	10.60	10.60	10.60	10.60	10.60	11.25	11.25	11.25
Philippines	9.78	10.04	12.08	12.57	12.75	12.82	12.77	12.70	12.68	12.64	12.63
Singapore	2.99	3.17	4.01	4.53	4.55	4.60	5.25	5.73	5.70	5.65	6.18
South Africa	7.94	8.17	7.61	5.57	5.49	5.11	4.56	4.49	3.97	3.90	4.30

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	4.75	6.34	10.57	10.15	9.94	10.20	11.26	11.95	14.72	12.90	13.70
Canada	8.62	7.25	10.62	11.12	11.00	11.62	12.00	11.90	14.62	13.65	14.15
Japan	6.75	5.89	4.64	5.21	5.29	5.81	6.41	7.12	6.97	8.14	8.01
Australia	9.75	9.75	9.10	10.60	10.40	10.00	10.20	10.30	10.65	10.50	10.30
United Kingdom	14.38	6.50	12.50	11.75	14.00	14.19	14.12	14.06	14.75	16.81	17.00
Belgium	10.50	9.50	9.25	9.15	9.75	12.00	12.00	12.50	14.10	14.35	14.45
France	10.00	9.19	6.44	8.62	9.19	10.69	11.37	11.62	12.50	12.37	12.62
Germany	4.80	3.60	3.70	6.40	6.65	6.95	7.45	7.90	9.75	9.50	8.70
Ireland	14.69	6.75	13.00	14.25	18.50	17.87	17.62	17.62	17.50	17.75	18.12
Italy	16.63	11.75	11.37	11.50	11.44	11.62	11.62	11.62	12.75	13.62	17.12
Netherlands	5.88	6.25	10.50	9.12	8.50	9.62	9.62	9.87	10.75	14.75	13.00
Spain	11.36	12.06	22.80	24.60	16.90	16.20	16.80	15.70	11.60	12.80	13.20
Switzerland	1.84	2.02	0.50	2.12	2.00	1.62	2.12	1.62	3.62	4.50	6.12
Brazil	45.44	46.93	51.47	45.88	47.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	5.50	5.73	11.82	13.25	12.38	11.50	13.45	13.12	12.75	13.25	14.37
Korea	16.99	16.88	17.01	17.01	17.01	19.53	19.53	19.53	19.53	19.53	19.53
New Zealand	10.37	11.87	12.00	14.25	14.50	15.25	15.50	15.00	16.00	16.25	16.00
Philippines	15.47	11.96	11.48	11.88	11.63	10.76	10.13	9.94	10.01	10.13	10.41
Singapore	3.75	4.81	7.38	7.44	7.63	7.81	8.25	8.75	8.25	8.25	10.12
South Africa	9.73	9.00	7.85	5.97	5.86	5.45	5.03	4.93	4.30	4.12	4.72

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	4.70	6.80	10.90	10.10	9.90	10.30	11.35	12.10	14.50	13.20	13.55
Canada	8.00	7.25	10.45	11.05	11.05	11.55	11.80	11.90	14.50	13.40	14.05
Japan	4.50	3.25	2.50	3.25	3.25	3.25	4.00	4.00	4.00	4.00	4.00
Australia	9.75	9.50	8.50	10.50	10.00	9.50	9.70	9.90	10.00	10.15	10.25
United Kingdom	14.13	6.37	12.25	11.81	13.75	14.00	14.19	14.06	14.62	16.75	16.81
Belgium	10.00	9.50	9.87	9.13	11.12	12.12	12.13	13.00	14.37	14.63	14.50
France	9.50	9.00	6.50	8.25	9.50	10.50	11.25	11.50	12.50	12.75	12.50
Germany	4.20	3.40	3.50	5.50	6.00	6.50	6.50	7.00	8.25	8.25	7.75
Italy	17.00	17.00	12.50	12.50	12.50	12.50	12.50	12.50	13.02	12.50	13.25
Netherlands	6.13	7.00	11.62	9.50	9.25	10.00	10.12	10.25	11.00	15.00	13.50
Austria	n.a.	9.00	6.75	6.12	7.25	7.50	7.37	8.25	8.75	8.50	8.50
Denmark	9.00	8.00	7.00	7.00	8.00	8.00	8.00	10.00	10.00	10.00	10.00
Finland	5.75	4.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	4.25	4.25
Ireland	n.a.	6.87	12.75	14.00	16.75	16.75	17.37	17.25	17.25	17.50	17.87
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	6.25	6.25	6.75	6.75	6.75	7.75	8.75	8.75
Switzerland	1.50	1.12	0.12	1.25	0.75	0.75	1.25	1.00	2.25	3.75	4.75
Brazil	45.60	39.60	46.80	48.24	46.92	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	3.25	1.75	4.50	7.75	7.75	7.75	9.25	9.25	9.25	9.25	9.25
Korea	15.00	13.20	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	9.50	9.50	12.00	12.00	12.00	12.00	12.34	13.68	15.13	16.80	n.a.
New Zealand	10.25	11.00	12.00	13.80	14.10	15.00	14.75	14.50	15.50	15.75	15.90
Philippines	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	10.50
Singapore	3.75	5.31	7.31	6.94	7.00	7.44	8.12	8.44	8.31	8.12	10.31
South Africa	9.75	8.70	7.30	5.70	5.65	5.27	4.87	4.75	4.10	4.00	4.82
Venezuela	8.00	7.00	7.25	13.50	13.50	13.50	13.50	13.50	13.50	15.00	15.00
Euro-dollars	5.00	7.19	11.69	10.44	10.50	11.31	12.12	12.75	15.69	14.00	14.44

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	6.00	7.75	11.75	11.75	11.50	11.75	12.75	13.50	15.00	15.50	15.25
Canada	9.25	8.25	11.50	12.00	12.00	12.50	12.50	13.00	14.75	15.00	15.00
Japan	7.42	5.47	4.50	4.68	4.87	5.06	5.38	5.68	5.86	6.05	6.31
Australia	11.50	11.50	11.00	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75
United Kingdom	15.50	8.00	13.50	13.00	15.00	15.00	15.00	15.00	15.00	18.00	18.00
Belgium	11.75	10.00	10.00	10.00	11.00	12.50	12.50	13.25	14.00	14.75	15.25
France	11.65	11.35	10.95	11.30	11.60	12.20	12.20	12.50	12.65	13.65	13.65
Germany	6.50	6.00	5.50	6.50	7.50	7.75	7.75	8.25	8.75	9.75	9.75
Italy	21.00	16.00	15.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50	19.50
Netherlands	8.50	7.00	12.00	10.00	10.00	11.00	11.00	11.00	11.37	15.00	15.00
Austria	n.a.	9.75	8.75	8.00	8.00	8.00	8.00	8.00	8.50	8.50	8.50
Denmark	14.00	12.50	10.00	10.00	11.00	11.00	11.00	13.00	13.25	13.75	13.75
Finland	9.71	6.85	7.87	7.83	7.83	7.84	7.83	7.85	7.85	n.a.	n.a.
Ireland	13.25	7.50	13.00	13.00	15.50	15.50	15.50	15.50	15.50	15.50	15.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	11.75	11.75	10.25	10.25	10.25	10.75	10.75	10.75	12.75	13.75	13.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Brazil	30.00	52.05	61.70	63.50	61.82	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	6.00	4.75	8.75	13.00	13.00	13.00	14.50	14.50	14.50	14.50	14.50
Korea	17.00	15.00	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
Mexico	15.50	17.00	17.50	17.50	17.50	17.50	17.50	17.50	19.00	19.00	19.00
New Zealand	7.50	8.50	10.75	12.00	11.75	11.50	12.00	11.75	13.50	12.50	12.00
Philippines	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	16.00
Singapore	6.78	7.02	7.65	8.12	8.12	8.35	8.78	8.92	9.10	9.18	9.50
South Africa	12.50	12.50	11.50	10.00	10.00	10.00	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	11.50	11.50	11.50	11.50	11.50	13.00	13.00
Euro-dollars	5.50	7.56	12.06	10.81	10.87	11.68	12.49	13.12	16.06	14.37	14.81

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	7.20	7.97	9.00	9.07	8.82	8.95	9.05	9.28	10.50	10.09	10.20
Canada	8.47	8.77	9.68	9.68	9.73	9.84	10.15	10.38	11.16	10.94	11.32
Japan	8.61	6.40	6.40	8.02	8.16	7.85	8.14	8.04	8.46	8.78	8.63
Australia	10.50	9.50	8.90	10.00	10.10	10.25	10.15	10.15	10.30	10.40	10.45
United Kingdom	14.31	10.53	12.75	11.89	12.34	12.10	11.76	12.05	12.72	13.98	13.83
Belgium	9.30	8.76	8.80	9.21	9.42	9.63	9.80	9.90	10.58	11.00	11.13
France	11.04	11.07	9.94	9.96	10.71	11.25	11.67	11.56	11.60	12.09	12.59
Germany	7.28	5.52	6.65	7.91	8.04	7.71	7.66	7.65	8.07	7.81	7.91
Italy	13.92	10.82	10.89	10.91	10.90	10.91	10.84	10.81	11.26	11.31	11.28
Netherlands	8.40	8.11	8.48	8.77	9.01	8.98	8.73	8.77	8.83	9.18	9.29
Austria	8.55	9.00	7.91	7.85	8.05	8.16	8.19	8.22	8.26	8.27	n.a.
Denmark	14.57	16.83	17.27	16.85	17.13	17.23	17.35	17.76	17.80	18.04	18.26
Finland	10.92	10.25	9.19	9.41	9.53	9.39	9.41	9.53	9.34	9.49	n.a.
Ireland	15.49	11.30	13.44	13.81	15.37	15.99	15.92	15.72	16.64	16.64	16.64
Norway	7.25	8.37	8.19	8.38	8.26	8.29	8.32	8.25	8.28	10.19	10.04
Sweden	9.61	9.84	10.09	10.20	10.21	10.41	10.44	10.49	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.19	3.43	3.51	3.51	3.50	3.63	4.04	4.20
Brazil	38.39	37.30	52.83	44.32	46.05	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	8.70	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Philippines	13.41	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.30	13.30	13.20
South Africa	11.00	10.75	9.85	9.53	9.74	9.73	9.55	9.40	9.29	9.34	9.44
Venezuela	7.04	7.24	7.24	7.37	7.36	7.21	7.35	7.36	7.35	7.33	7.29

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	7.35	8.30	9.25	9.40	9.15	9.20	9.45	9.70	11.00	10.50	10.75
Canada	9.58	9.71	10.34	10.29	10.34	10.52	10.85	11.09	11.97	11.72	12.07
Japan	6.81	6.68	6.94	7.90	8.05	7.80	7.75	7.79	8.11	8.34	8.34
Australia	12.00	11.00	10.25	11.00	11.25	11.35	11.25	11.15	11.40	11.65	11.65
United Kingdom	15.96	11.88	13.53	12.31	13.00	12.76	12.64	12.88	13.40	14.89	14.96
Belgium	11.88	9.85	9.58	9.82	10.13	10.32	10.83	10.92	11.34	11.70	11.93
France	11.39	12.09	10.27	10.30	11.12	11.54	12.03	11.88	11.84	12.33	12.92
Germany	7.47	5.92	6.80	7.60	7.90	8.00	7.80	7.80	8.00	8.40	8.20
Italy	16.90	10.71	10.12	9.84	10.07	10.07	10.04	9.92	9.99	9.90	10.22
Netherlands	8.22	7.90	8.62	8.73	9.12	9.15	8.96	8.82	9.10	9.50	9.95
Norway	7.65	8.59	8.37	8.56	8.36	8.45	8.54	8.63	n.a.	10.94	10.53
Spain	10.86	11.58	12.17	11.69	11.52	11.79	12.04	12.04	11.54	11.40	11.77
Sweden	9.82	9.83	10.03	9.62	9.48	9.16	9.59	9.65	9.75	9.81	10.21
Switzerland	5.50	4.96	4.35	5.15	5.30	5.17	5.24	5.27	5.28	5.44	5.53
Korea	21.70	19.60	24.00	29.00	29.00	29.20	29.20	29.20	29.20	31.00	32.50
Mexico	15.56	17.56	20.37	19.21	19.88	19.51	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	10.37	10.39	12.43	11.70	12.28	12.69	12.71	13.35	13.59	14.06	14.55

Key to data in tables

I. International markets

Definitions

An *international bond* issue is one sold outside the country of the borrower. It may be either a Euro-bond issue or a foreign bond issue.

A *Euro-bond* issue is one underwritten by an international syndicate and sold principally in countries other than the country of the currency in which the issue is denominated.

A *foreign bond* issue is one underwritten by a syndicate composed of members from one country, sold principally in that country, and denominated in the currency of that country.

A *Euro-currency bank credit* is a loan in a currency which is not native to the country in which the bank office making the loan is located.

Data on *new international bond issue volume* include all publicly announced issues with an original maturity of three years or more, whether publicly or privately placed, but exclude those where the investor is a central bank, monetary authority, or government.

Data on *new Euro-currency bank credit volume* include all publicly announced loans with an original maturity of more than one year. A loan is included in the period in which the lending banks make a commitment covering the amount and terms of the loan to the borrower.

Categories of borrower

U.S. companies include both parent companies and their financing affiliates, either domestic or foreign.

Other companies include private companies domiciled outside the United States and their affiliates.

State enterprises include public agencies.

Governments include central and local governments.

Country of borrower

The country of the borrower is the residence of the borrowing entity, except where the entity is a financing vehicle, in which case the residence of the parent company and or guarantor is used.

International bond yields

Yields are calculated to the nearest day of maturity. Interest on bonds with annual coupons is discounted semiannually for comparability in computation of yield.

The yield indices are simple arithmetic averages of end-of-month secondary market yields for groups of selected straight-debt securities. Yield indices for six categories of bonds have been calculated according to borrower and currency. They are based on issues of good-quality, well-known borrowers. Occasionally the individual issues in each category are changed.

The number of issues represented in each of the indices is as follows:

Long-Term, U.S. companies, U.S. dollar — —ten Euro-bond issues.

Long-term, U.S. companies, Swiss franc — eight foreign bond issues.

Long-term, European companies, U.S. dollar — ten Euro-bond issues.

Long-term, European companies, German mark — ten Euro-bond issues.

Long-term, governments, U.S. dollar — six Euro-bond issues (governments of Italy, Denmark, and France).

Euro-currency deposit rates

All data are prime banks' bid rates for deposits in London. Offer rates commonly used as a basis for Euro-dollar lending are generally .125% above bid rates.

II. Domestic markets

Day-to-day money rates

Austria — day-to-day interbank rate.

Australia — approximate effective interest rate in the authorized short-term money market.

Belgium — interbank call money.

Brazil — interbank overnight market for Banco do Brasil checks.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48 hour call money.

Japan — Tokyo interbank call money, overnight lenders rate until December 1974. New series as of January 1975, unconditional lenders rate.

Korea — call money.

Mexico — financiera bonds in bearer form available to corporations, redeemable on demand. Higher rates available to individuals.

Netherlands — open-market call money.

Philippines — interbank call money.

Singapore — interbank overnight money.

South Africa — National Finance Corporation call money.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

United Kingdom — call money.

United States — effective Federal funds rate.

Euro-dollars — prime banks' bid rate for overnight money.

Treasury bill rates

Australia — new issues of 13-week Treasury notes.

Belgium — 3-month Treasury certificates.

Brazil — 91-day Treasury bills (LTN), at tender.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month Central Bank Exchequer bills.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Korea — 3-month Treasury bills sold by Korean Central Bank.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — 3-month Treasury bills.

Philippines — 91-day Treasury bills at tender.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Sweden — new issues of 3-month Treasury bills.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — 3-month prime finance company paper.

Belgium — 4-month Fonds des Rentes certificates.

Brazil — 90-day first class commercial paper of major financial groups.

Canada — 3-month prime finance company paper.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — Tokyo interbank call money, unconditional, lender's rate until December 1974. New series as of January 1975, 3-month repurchase agreements.

Korea — 3-month financial bill.

Netherlands — 3-month municipal loans until December 1976. New series as of January 1977, 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — 90-day promissory notes.

Singapore — 3-month bank acceptances.

South Africa — 90-day bank acceptances.

Spain — 1- to 2-month interbank deposits.

Switzerland — 3-month interbank deposits.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month non-negotiable certificates of deposit of investment banks. Legal maximum rates until April 1975, free rate subsequently.

Canada — 3-month time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — 3-month certificates of deposit. Rate set by the Hong Kong Exchange Banks' Association.

Ireland — 3-month time deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Key to data in tables – continued

Japan — 3-month time deposits.

Korea — 3-month time deposits.

Mexico — 3-month certificates of deposit issued by financieras to corporations for amounts over Ps. 1 million. Higher rates available to individuals.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month time deposits. Higher rates may be negotiated for 12-month or more time deposits in large amounts.

Philippines — 3-month time deposits.

Singapore — 3-month time deposits until May 1975, 3-month certificates of deposit thereafter.

South Africa — 3-month time deposits at merchant bank until May 1975. Negotiable certificates of deposit from June 1975.

Spain — maximum legal rate for 3-month deposits.

Sweden — deposits at 6-months' notice.

Switzerland — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month certificates of deposit for amounts above Bv. 250,000 until December 1977. New series as of January 1979, 6-month certificates of deposits for domestic borrowers for amounts above Bv. 1,500,000.

Euro-dollars — prime banks' bid rate for 3-month deposits in London.

Commercial bank lending rates to prime borrowers

Austria — overdraft rate for prime borrowers, including commission.

Australia — approximate overdraft rate for prime borrowers. Rate for prime borrowers usually .25% to .75% below the maximum overdraft rate; rate shown is .5% below.

Belgium — prime overdraft rate.

Brazil — commercial bank legal maximum rate (discount basis) for maturities up to 60 days until August 1977. In addition, compensating balances were required. New series as of September 1977, weighted average investment bank lending rates.

Canada — prime rate.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — overdraft rate for prime borrowers, including a commission of .05% per month on highest debit balance during the month.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime rate.

Ireland — AAA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average rate on loans and discounts of city banks, computed by the Bank of Japan until December 1974. New series as of January 1975, average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Mexico — major bank prime rate, subject to legal maximum. In addition, compensating balances are required.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .333% prior to July 1976, .25% thereafter, per quarter on the total line of credit.

Philippines — maximum legal rate, for unsecured loans exclusive of service fee.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — maximum legal rate for discounting commercial bills plus a commission of 1% per annum. In addition, compensating balances may be required.

Sweden — overdraft rate for prime corporate borrowers, including a fee of 1% from January 1972 to March 1976, .75% from April 1976 on total amount of credit authorized.

Switzerland — overdraft rate for prime borrowers, including commission of .25% per quarter on highest debit balance in quarter.

United Kingdom — unsecured overdraft rate for prime borrowers.

United States — prime rate of Morgan Guaranty Trust Company. In addition, compensating balances are required.

Venezuela — representative rate for prime borrowers until December 1978. New series as of January 1979, similar rate for domestic prime borrowers only.

Euro-dollars — representative average rate for 3-month loans to prime borrowers.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — 20-year government bonds.

Belgium — Belgian National Bank average yield on government bonds maturing in more than five years.

Brazil — 5-year inflation-indexed 8% Treasury Readjustable Obligations (ORTN).

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 5% government bond of 2007 until December 1976. New series as of January 1977, 10% government bonds with maturity of 7 to 8 years.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — Institut National de la Statistique et des Etudes Economiques (INSEE) yield on public and semi-public sector bonds.

Germany — Frankfurter Allgemeine Zeitung (FAZ) 7% public authority bond average until September 1978. New series as of October 1978, FAZ 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average of yields on six outstanding bonds of public-sector entities, new series as of January 1977.

Japan — average yield on outstanding maturities of 6.5% national government bonds until December 1974. New series as of January 1975, secondary market yield for the 6.1% due 1988 national government bond.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest 7% to 7.75% government bonds.

New Zealand — average yield on government bonds maturing after 10 years.

Norway — 5% government bond of 1996.

Philippines — Central Bank 5-year Certificate of Indebtedness, regular issue.

South Africa — 25-year government bonds.

Sweden — 15-year government bonds.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 20-year government stock until December 1975. New series as of January 1976, F.T. Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Domestic corporate bond yields

Australia — long-term secured debentures, indicated by Australian United Corporation.

Belgium — Belgian National Bank average yield on private corporate bonds maturing in more than five years.

Canada — McLeod, Young, Weir Co. Ltd., average yield on ten industrial bonds.

France — INSEE tax-adjusted average yield on outstanding private corporate bonds.

Germany — FAZ 6% industrial bond average until September 1978 New series as of October 1978, Bundesbank average yield on industrial bonds

Italy — average of yields on six outstanding bonds of leading Italian industrial companies; new series as of January 1977.

Japan — average of yields on outstanding Nippon Telegraph & Telephone interest-bearing yen debentures until December 1974. New series as of January 1975, secondary market yield for NTT bond maturing April 1987.

Korea — average of yields on 3-year corporate bonds guaranteed by local banks.

Mexico — 9% Teléfonos de Mexico bond, series AA, of 1990 until December 1976. Average of yields of six outstanding Telefonos de Mexico bonds from January 1977.

Netherlands — CBS average yield on three 6% to 6.5% corporate bonds.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984.

Spain — average yield for a selected group of electricity companies.

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of five leading Swiss companies.

United Kingdom — F.T. (Financial Times) Actuaries 20-year debentures and loans.

United States — Salomon Brothers index of new issue yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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World Financial Markets

Morgan Guaranty Trust Company of New York

February, 1980

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Effective dollar exchange rate

index, March 1973=100

Latest plotting February 26

Foreign exchange market developments

The dollar has strengthened in the foreign exchange markets since the beginning of the year, despite the worsening of the U.S. inflationary outlook and a widening of the U.S. trade deficit. In December, the U.S. merchandise trade deficit (F.A.S. customs basis) rose to over $3 billion, seasonally adjusted, from $1.4 billion in the previous month. (With the release of the January trade statistics, U.S. trade is being reported on a different basis: see footnote on page 2). Indeed, the dollar strengthened further following the latest Federal Reserve measures taken this month.

The dollar appreciated by about 4% *vis-à-vis* the Japanese yen, by 5½% against the Swiss franc, and by about 2.8% against the German mark and most other EMS currencies between the beginning of January and February 26 (see Table 1). During the same period it depreciated by about 1.5% against the British pound and by 1.3% against the Canadian dollar. On an effective basis, the dollar is up by about 1% since the beginning of the year, and it is about 2% higher than in the week immediately preceding the Federal Reserve measures of October 6 (see chart).

Official intervention by foreign central banks has kept the dollar from rising even further. U.S. liabilities to foreign official institutions did not change much on balance in the first seven weeks of the year, but this understates the amount of central bank intervention in support of foreign currencies. There have been net additions to U.S. liabilities resulting from interest accruals on about $140 billion of U.S. liabilities to foreign central banks and from new investments in U.S. government securities by surplus countries, especially OPEC members. There have also been net dollar purchases by the Bank of England. Offsetting these have been net dollar sales by other foreign central banks.

The Bank of Japan, in particular, has stepped up its yen support operations, with net dollar sales estimated to have exceeded $1 billion in the past few weeks. Even this has not been sufficient to keep the yen/dollar rate from falling beyond the Y245-per-dollar level, mainly on account of accelerating inflation in Japan and the country's large trade and current account deficits, which were running at seasonally adjusted annual rates of $4 billion and $16 billion, respectively, in the latest three months ended January. Part of Japan's current account deficit

Table 1

Exchange rate changes from January 2, 1980 to February 26, 1980

in percent vis-à-vis U.S. dollar and on a trade-weighted basis

	vis-à-vis U.S. dollar	*real effective exchange rate*[a]
Dollar	—	0.2
Canadian dollar	1.3	2.3
Japanese yen	—3.8	—3.5
German mark	—2.8	—0.4
French franc	—2.8	—1.9
British pound	1.5	5.0
Italian lira	—1.7	0.4
Swiss franc	—5.6	2.2
Dutch guilder	—2.7	—2.1
Belgian franc	—2.6	—1.5

a a rise indicates impairment of competitiveness because of changes in exchange rates and/or prices

this past year was financed by short-term borrowings of Japanese foreign exchange banks, as reflected in the $5 billion increase in their net short-term external liabilities in 1979. Moreover, Japanese authorities have been facilitating substantial foreign official purchases of yen securities through sales out of existing accounts of the Bank of Japan. Recently, the Bank of Japan raised the discount rate by one percentage point to 7.25%, and a further increase may occur earlier than had been expected in view of rising interest rates abroad.

The German and Swiss central banks have made occasional dollar sales to limit movements of their currencies *vis-à-vis* the dollar. In addition, the dollar holdings of the Bundesbank and the Swiss National Bank have been reduced as a consequence of swap operations with domestic commercial banks that are designed to adjust domestic liquidity. Since the beginning of the year the Bundesbank's net external reserves have fallen by about DM4 billion. The Swiss authorities have moved to shore up the franc by lifting the ban on interest payments to nonresidents, except on interbank deposits. Henceforth, central banks will receive interest on Swiss franc time deposits of at least six months. In addition, the Swiss monetary authorities eased forward exchange restrictions, permitting foreigners to purchase a larger volume of Swiss francs.

There has been considerable intervention by some EMS participants to keep their currencies within the 2¼% narrow band in response to market expectations about another currency realignment. In particular, the Belgian franc and Danish krone have been under considerable pressure in recent weeks. Belgium raised its discount rate by 1½% to 12% on February 27 as that country faces a $4 billion current account deficit, second only to Germany's among the EEC countries and equal to more than 3% of Belgian GNP. The Belgian deficit is due to sharply rising imports of consumer goods and oil and to stagnating net invisibles earnings, reflecting a large travel deficit and higher interest payments abroad. Belgium also has a large government budget deficit, which in 1979 was equivalent to about 16% of government expenditures. Nevertheless, the Belgian inflation rate in 1980 is expected to be 5½%-6%, or considerably below the average for major industrial countries, which should help improve further the competitiveness of Belgian products. As shown in the appendix table on page 12, the real effective exchange rate for the Belgian franc has declined by about 5½% since the end of 1978, mainly as a result of the relatively low rate of increase in manufactures prices.

The Danish monetary authorities have been intervening heavily in direct support of the krone, and they recently raised the central bank discount rate by two percentage points, to 13%. Consumer price inflation now is near 12%. The incomes policy adopted in December

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A new procedure in announcing U.S. trade statistics is introduced beginning with the results for January. In the past, the monthly release of U.S. trade figures reported exports on an F.A.S. (free along side) basis and imports on both an F.A.S. basis and a C.I.F. basis. The F.A.S. basis — which is very similar to the F.O.B. (free on board) basis — represents the transactions value of imports at the port of exportation, while the C.I.F. basis includes the cost of insurance and freight to the United States. Emphasis has been placed generally on the trade balance on an F.A.S. — F.A.S. basis. However, as mandated by Congress, effective with the January 1980 trade figures, statistics will be released for exports on an F.A.S. basis and imports on a C.I.F. basis forty-eight hours in advance of those released on an F.A.S. — F.A.S. basis. This change will have the effect of showing a larger trade deficit for the United States. In 1979, the U.S. trade deficit on an F.A.S. — C.I.F. basis was $12½ billion larger than on an F.A.S. — F.A.S. basis — a difference of about $1 billion per month. This change will not affect the U.S. trade balance on a balance-of-payments basis or the current account balance, where expenses for freight and insurance are excluded from the merchandise trade accounts and are included in the services accounts.

U.S. government yield curve

in percent

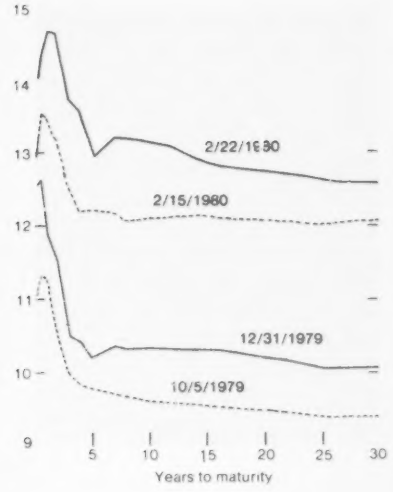


Table 2

Three-month Euro-currency deposit rates

percent per annum end of period

	1979		1980
	Sep	Dec	Feb 26
United States	12.75	14.44	16.50
Canada	11.81	13.75	13.75
Japan	7.31	8.31	10.25
Germany	7.44	8.56	9.12
Switzerland	1.75	5.75	5.56
United Kingdom	14.06	16.75	18.00
France	13.25	14.00	13.87
Netherlands	9.37	12.44	12.22

Table 3

Selected long-term interest rates[a]

percent per annum end of period

	1979		1980
	Sep	Dec	Feb 26
United States	9.41	10.43	13.60
Canada	10.38	11.32	12.88
Japan	8.04	8.65	9.14
Germany	7.65	7.91	8.54
Switzerland	3.65	4.21	4.66
United Kingdom	12.56	14.61	14.50

a domestic government bond yields for mostly 8- to 10-year maturities

permits wage increases in excess of 10%, and is having only a limited restraining effect on consumption demand. The current account deficit has been running at about a $3 billion annual rate (4½% of GDP). The real effective krone rate has depreciated by about 10% since late 1978 — mainly as a result of the two devaluations in 1979 — considerably improving Danish price competitiveness. However, much of this improvement has yet to work through to the volume of export and import shipments, and the merchandise trade balance still is experiencing negative j-curve effects.

Italy, after recording extraordinarily large current account surpluses in the last three years (averaging more than $6 billion per annum), is expected to face a major cut in the surplus this year. There were record trade deficits in November and December 1979, and future monthly results should continue to show large deficits. The worsening is due to higher oil imports, deteriorating terms of trade, a weakening export demand, and strong import demand. Nevertheless, given the high volume of export orders and the large surplus on the invisibles account, the Italian current account may still record a small surplus of perhaps $1½ billion in 1980.

In Ireland the current account deficit rose from about $300 million in 1978 to an estimated $1.6 billion in 1979, or more than 10% of GDP. While much of the increase last year can be attributed to special factors, only a moderate improvement is anticipated in 1980 because of the hike in oil prices and prospective rise in debt service payments. The rate of consumer price inflation doubled from 8% in 1978 to 16% in 1979, and the Haughey government is expected to adopt a number of stabilization measures, beginning with the new budget.

U.S. interest rate developments

The dollar's firmness in foreign exchange markets has been partly attributable to the large interest rate differentials that exist between the United States and most major industrial countries (see Tables 2 and 3). Since the beginning of the year, the interest rate differentials in favor of dollar-denominated assets have widened *vis-à-vis* those denominated in other key currencies, mainly as a result of an increase in U.S. interest rates. At first, the rise was concentrated in the intermediate and long end of the maturity spectrum. However, following the increase in the federal funds rate to the 14½% level in the second week of February and the subsequent 1% boost in the Federal Reserve's discount rate on February 14 the upward movement spread to short-term rates as well.

As of February 26, yields on ten-year U.S. government bonds stood at 13.6%, or about 315 basis points above the 1979 year-end level and more than about 420 basis points above the level at the end of September 1979. Interest rates on three-month Treasury bills have risen to 14.6%, up by about 190 basis points over the level at the end of 1979 and about 400 basis points over the level at the end of September 1979. The recent movement in U.S. interest rates, thus, has resulted in another upward shift in the inverse yield curve for government securities (see chart).

The principal factor behind the increase in U.S. interest rates has been the rise in inflation and an upward revision in inflationary expectations. Previously, the prevailing view had been that a U.S. recession, together with a more restrictive U.S. monetary policy and more moderate oil price increases, would contribute to a reduction of U.S. inflation in 1980, and that inflation

would be down to a single digit by the second half of the year. Recent events have called these assumptions into question.

Instead of leveling off or decelerating, inflation has shown signs of accelerating. During the fourth quarter of 1979, U.S. producer prices increased at almost an 18% annual rate, up from a 14% rate in the previous quarter, and in January they increased at more than a 19% annual rate — the largest monthly increase since October 1974. Consumer prices rose at an 18% annual rate in January, up from a 13.2% rate in the fourth quarter of 1979. Given the recent trends in producer prices, energy costs, and mortgage rates, many analysts now expect that the rate of consumer price inflation will not recede very much over the next couple of months from the rate in January.

Part of the reason that inflation has accelerated is that the overall pace of economic activity in the United States has continued to expand. Real GDP rose at a revised 2.1% annual rate during the fourth quarter of 1979. And, while housing starts and auto sales are down, several indicators, including industrial production, retail sales, consumer durables orders, and survey data for business investment, point to continued positive growth in the first quarter of 1980. Most econometric forecasts still call for a recession in the middle quarters of this year, but at this stage there is no assurance at all that a recession will come that early.

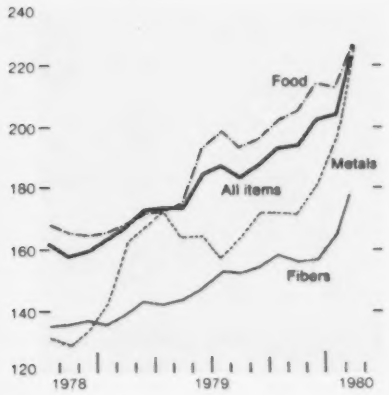
The principal reason that a recession has not materialized yet has been the unanticipated behavior of U.S. consumers. Instead of cutting back expenditures in the wake of declining real incomes, consumers responded to high and accelerating inflation by increasing their spending at a 4½% annual rate in real terms during the second half of 1979. This rate was sustained in the fourth quarter, mainly as a result of a drop in the personal saving ratio to its lowest level since the Korean War. It remains to be seen whether consumers will bring their spending patterns in line with their inflation-eroded real income levels or whether they will respond by incurring more debt and saving less in order to sustain their standards of living and to acquire tangible assets in anticipation of further price increases

Real business fixed investment in plant and equipment has also held up reasonably well in recent months. While business fixed investment declined in the fourth quarter of 1979, this decline was mainly due to transportation equipment (autos, trucks, and airplanes). Excluding these items, real business fixed investment increased at a 14% annual rate. The Commerce Department's latest survey (conducted in late December) points to a 1%-2% increase in planned outlays in real terms in this year. Even though there has been a tendency for such surveys to overstate actual spending during recessions, there is presently considerable strength in this sector as evidenced by new orders for nondefense capital goods.

The principal revision in the U.S. outlook for 1980 and beyond is in the area of government expenditures. Federal government expenditures on nondefense items for the current fiscal year are now projected to grow by more than 16% in nominal terms, up from a 10% increase in 1979, mainly on account of expenditures that are tied to cost-of-living increases, such as social security and medical care payments. On top of this, the President's budget message called for authority to increase defense expenditures by 5½% in real terms for the next fiscal year, beginning October 1, which

*Commodity prices**

index, 1975=100



*Source: *The Economist*

would imply a 20% increase in nominal terms if inflation averaged 15%. The President also proposed that authorizations for defense expenditures through 1985 be increased at a 5% annual rate in real terms. The budget message is reminiscent of the "guns and butter" budgets of the mid-to-late 1960s, and it did not contain any new initiatives for reducing inflation. Along with the relaxation of the voluntary wage-price standards, it has raised new doubts about the administration's commitment to fight inflation.

The large increases now anticipated for government expenditures in both defense and nondefense areas are significant not only because of their implications for aggregate demand but also for U.S. productivity. Last year, for the first time since 1974, the U.S. economy registered an overall decline in labor productivity. The rate of decline in output per man-hour averaged about 1% for the year as a whole, and more than 2% in the fourth quarter of 1979 from the fourth quarter of 1978. The increased federal government expenditures — now expected to be about $70 billion higher in FY 1980 than in FY 1979 — and the low personal saving ratio have raised concerns that the poor performance of U.S. productivity will be perpetuated. Under these circumstances, government expenditures and the budget deficit (estimated by the government to be $40 billion in FY 1980 versus $28 billion in FY 1979) should be reduced, while incentives should be provided to encourage private saving and investment.

Another factor that has diminished the prospects for a substantial reduction of inflation this year has been the upward movement of prices of oil and other commodities. As of mid-February, the weighted average official OPEC price of crude oil reached $29 per barrel, up from $21 per barrel at the end of October 1979. While spot prices and the volume of spot transactions have been declining, the current *effective* price of crude oil, nevertheless, is some 25% higher than in October. Even if spot prices were to move closer to the current level of official prices and remain unchanged at that level for the rest of the year, the average 1980 oil price would be about 50% above the 1979 average, or virtually the same average increase as in 1979. The percentage increase in domestic crude oil prices in the United States is likely to be even larger than that abroad, partly because the U.S. price is below the world average and also because partial decontrol of U.S. domestic crude oil prices will close some of the gap between domestic and world prices.

In addition, *The Economist* commodity price index (which excludes oil) rose by 20% at an annual rate in the fourth quarter of 1979 over the previous quarter, and it increased at a 15% rate in January of this year (see chart). The recent increases reflected rising prices for foods, metals, and fibers. Of the three components, metal prices have increased the most, rising at a 25% annual rate during the fourth quarter of 1979 and at more than a 100% annual rate in January of 1980. This surge has coincided with the rise in precious metals and the announcements relating to increased defense expenditures.

Since the budget is not a restraining force, the burden of fighting inflation in the United States now rests largely with the Federal Reserve. Immediately following the October 6 measures, the Fed created an atmosphere of increased policy restraint, relating to both the cost and availability of funds, and of determination to crush inflationary expectations. By January and early

February, this atmosphere had eased, as credit markets became convinced that ample funds would be available at the prevailing market price (albeit at a high price). Contrary to expectations, the Federal Reserve discount rate was not changed until mid-February. The Federal funds rate, which fluctuated over a wide range in October and November, settled into a much narrower range by the beginning of this year and at times fell below 13%. Moreover, the new marginal reserve requirements on commercial banks' managed liabilities have not yet had a material impact. In recent weeks outstanding "managed liabilities" subject to the 8% marginal reserve requirements have been only about $3 billion, compared with Fed estimates last October of managed liabilities of member banks of $240 billion. Consequently, there was a growing impression that the Federal Reserve's policy would not be sufficient to dampen inflation.

Against this background, a new round of measures was clearly needed. On February 14, the Federal Reserve raised the discount rate to 13%; that move was followed shortly by the announcement of the money-supply targets for 1980. The new long-run target range for M-1A, a measure of currency and checking accounts similar to the old M1, will be 3.5%-6%, while that for M-1B, a broader measure that includes automatic transfer savings accounts and checking accounts at savings institutions, will be 4%-6.5%. The midpoints of the new M-1A and M-1B target ranges are about two percentage points below the growth of these aggregates in 1979, after adjustment is made for the NOW accounts in New York State and automatic transfer accounts nationwide.

In his recent testimony before the House Banking Committee, Chairman Volcker emphasized that the Federal Reserve is determined to reduce monetary growth gradually, not just in 1980 but in subsequent years as well. He cautioned that if inflation and the economy fail to weaken, the result would be that the demand for money would clash with the monetary targets and would produce "strong financial restraint." In this case, the effectiveness of marginal reserve requirements on bank lending rates and bank credit may be greater than at present. Nevertheless, there is still considerable skepticism in the financial markets, first, about whether the Federal Reserve will stick to these lower money supply targets (actual money supply growth rates were above the ceilings of the ranges for M-1A and M-1B as of mid-February) and, second, whether a policy of gradualism will be sufficient to dampen inflation and inflationary expectations. Moreover, in view of the sharp decline in real incomes over the past few years — with nominal wage increases in 1979 averaging only 7.8% — it seems likely that wage earners will attempt to recoup some of their lost purchasing power. As a result, there is growing debate about the need for new initiatives in the fiscal policy area — including a substantial reduction in nondefense expenditures and greater incentives for saving and investment — as well as the possible imposition of mandatory credit restraint and/or wage and price controls.

Inflationary developments abroad

The United States, of course, is not the only country to experience accelerating inflation and an upward revision of inflationary expectations. A number of other key industrial countries — including Japan, the United Kingdom, Italy, and France — also experienced sharp increases in their rates of consumer price in-

flation in January, mainly owing to higher oil prices. In Japan, rising import and wholesale prices (up 73% and 19%, respectively, over a year ago) helped to push the consumer price index in Tokyo up by 1% (12% annual rate) in January. This brought the year-over-year increase to 6.2% — the highest rate in over two years. The CPI inflation rate is expected to climb even further in the months ahead, not only as a result of recent wholesale price increases but also owing to increased rates that will be charged by public utilities.

Britain's retail prices increased by 2½% in January, bringing the year-over-year increase to 18½%. While part of the rise is attributable to last summer's VAT (value-added tax) increase and accelerating wage and raw material costs, it also reflects special factors — e.g., a delayed increase in mortgage interest rates and higher charges for a number of public services. The short-term inflation outlook remains grim, with the twelve-month inflation rate expected to approach 20% this spring.

Italy's consumer prices spurted by 3.3% in January, largely due to increases in energy products and rents, bringing the year-over-year increase to 21½%. While the January increase is not expected to be repeated, Italy is likely to experience one of the highest rates of inflation in Europe — higher than the government's target of 18% — because of structural problems, including wage indexation. Consumer prices in France rose by 1.9% in January, also mainly due to large increases in gasoline and fuels prices, bringing France's inflation rate to 13% year-over-year. French policy is to pass on immediately all increases stemming from costlier imported oil. Although future monthly price increases are expected to be lower, France's CPI inflation rate in 1980 could remain around 12½%-13%.

Switzerland and Germany are the principal exceptions to the pattern of accelerating inflation. Consumer prices in Switzerland declined in January, after they increased at only a 2% annual rate in the fourth quarter of 1979. This partly reflects recent declines in the price of oil on spot markets, from which Switzerland obtains most of its supply. Germany registered a 0.6% increase (7% annual rate) in its consumer price index in January, which was only slightly above the 5½% annual rate increase in the fourth quarter of 1979. The leveling off of inflation in both of these countries has coincided with marked reductions in their rates of growth of money and with moderate wage settlements (but not with currency appreciation as in earlier years).

Despite the high rates of inflation overseas, inflation in the United States has continued to outstrip that of most other key industrial countries, not only with respect to consumer prices but also wholesale prices of manufactures. A major question is whether dollar stability can be maintained over the longer run in view of the widening adverse differential between manufactures output prices in the United States and its major trading partners. Last year, this differential narrowed to 1% from 1.5% in 1978. However, the differential widened during the fourth quarter of 1979, and it is projected to average about 2% in 1980. This, together with the stable dollar, has contributed to some erosion of U.S. international price competitiveness, with the real effective exchange rate for the dollar now about 1½% above the level at the end of September.

In the near term, the large interest rate differentials in favor of the United States and the relatively strong U.S. current account position

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Table 4

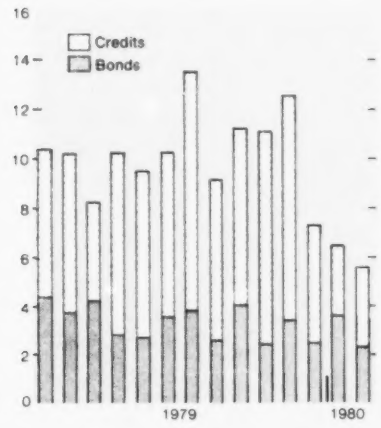
Publicized new international bond issues and medium-term Euro-currency bank credits

in billions of dollars

	1979		1980
	Year	Jan-Feb	Jan-Feb
International bond issues	41.0	8.3	5.9
Euro-bond issues	18.7	2.9	2.0
U.S. dollar	12.6	1.6	1.1
German mark	3.6	1.1	0.6
Other currencies	2.5	0.2	0.3
Foreign bond issues	22.3	5.4	3.9
U.S. market	4.5	1.1	0.8
Swiss market	9.8	2.4	1.1
German market	5.4	1.6	1.7
Japanese market	1.8	0.3	0.2
Other markets	0.8	0.0	0.1
Euro-currency bank credits	82.8	12.5	6.5
Total	123.8	20.8	12.4

Gross publicized new international bond issues and Euro-currency bank credits

in billions of dollars



vis-à-vis Europe and Japan should be sufficient to offset the adverse inflation differential. Over the longer run, however, reduction of inflation in the United States is pivotal to maintaining dollar stability.

International credit markets

There has been a major decline in the volume of borrowing, and a tightening of credit terms, in the international money and capital markets this year. The volume of publicized gross new borrowings in the international credit markets during January and February this year was only about $12.5 billion, or $75 billion at an annual rate. In comparison, borrowers raised nearly $21 billion in the first two months a year ago and $124 billion during all of 1979 (see Table 4). Most of this decline was accounted for by a sharp reduction in the amount of publicized new Euro-currency credits to $6.5 billion versus $12.5 billion during January-February 1979. New international bond issues fell to $5.9 billion compared with $8.3 billion in the first two months of 1979.

Table 5 shows gross new borrowings in the international credit markets according to country of borrower. The industrial countries reduced their level of borrowing by about $2 billion, to $8.3 billion, in the first two months of 1980. Some countries — the United States, Spain, Italy, France, and Japan — maintained their level of borrowings from the previous year. Large declines were registered by other major borrowers. Canada, which was the second largest industrial-country borrower in 1979, decreased its borrowing to $600 million during January-February versus $1.2 billion a year ago. Norway reduced its recourse to the international credit market to $300 million from the $900 million it obtained in the first two months of last year. Yugoslavia has not borrowed so far this year.

Gross new borrowings by non-OPEC LDCs declined sharply to $1.9 billion in the beginning of this year versus $5.9 billion in 1979. Brazil has virtually not borrowed at all during the first two months, even though the country has large financing requirements; however, a number of Brazilian borrowers are reported to be testing the market. Mexico and Argentina have both borrowed less than $100 million in 1980 compared with the $1.4 billion and $900 million, respectively, that they raised at the start of 1979. The Philippines has cut its borrowing in half, to $200 million during the first two months of 1980. Korea is one of the few major developing-country borrowers that has increased its borrowing so far this year, and then only marginally.

Of course a few non-OPEC LDCs — such as, Mexico, Malaysia, and Peru — have become net oil exporters, and the resultant oil revenues and improved current account positions have lessened their needs for external financing. Some non-OPEC LDCs whose financing requirements are on the rise have refrained from borrowing in recent months and instead have drawn down their international reserves, which had been built up through previous years' borrowings.

The OPEC countries raised $1.1 billion in January-February 1980, which is sharply down from the $2.5 billion borrowed in the same period last year. Those OPEC countries that have entered the markets are for the most part the ones whose current account surpluses are anticipated to be of the shortest duration and which have the largest amounts of maturing debt. The biggest individual declines were for Venezuela, with borrowings of $300 million this year versus $1.3 billion in the same period a year ago, and

Table 5

Publicized new international bond issues and medium-term Euro-currency bank credits by country of borrower

in billions of dollars

	1979		1980
	Year	Jan-Feb	Jan-Feb
Industrial countries	59.1	10.4	8.3
United States	9.1	3.2	1.6
Spain	4.6	0.8	1.0
Italy	4.0	0.5	0.8
Japan	5.8	0.5	0.7
Canada	6.0	1.2	0.6
Sweden	2.8	0.1	0.6
New Zealand	1.1	0.1	0.5
France	5.1	0.3	0.4
Norway	2.9	0.9	0.3
Yugoslavia	2.2	0.3	—
Others	15.5	2.5	1.7
Non-OPEC LDCs	38.1	5.9	1.9
Korea	3.3	0.5	0.7
Philippines	2.2	0.4	0.2
Panama	0.3	0.2	0.1
Argentina	3.5	0.9	0.1
Mexico	8.6	1.4	*
Brazil	7.2	1.5	*
Others	13.0	1.0	0.8
OPEC countries	13.0	2.5	1.1
Venezuela	6.9	1.3	0.3
Ecuador	0.6	—	0.2
Indonesia	1.1	*	0.2
Algeria	2.1	0.7	—
Others	2.3	0.5	0.4
Communist countries	7.4	1.2	0.4
Rumania	0.6	0.3	0.2
Hungary	0.3	—	0.2
China	3.4	—	—
Others	3.1	0.9	—
International organizations	6.2	0.8	0.7
Total	123.8	20.8	12.4

*less than $50 million

Algeria, which has not raised any funds to date compared with $700 million in January-February 1979.

Only two communist countries have borrowed from the international credit markets this year: a $250 million Euro-loan by Hungary and a $200 million Euro-loan by Rumania are now being arranged. Lenders are apprehensive amidst all the political uncertainties arising from Afghanistan, as well as the growing concern over economic conditions in Comecon countries and their mounting debt burden.

Euro-currency credit terms

As noted earlier, the volume of publicized gross new medium-term Euro-currency bank credits in the first two months of 1980 is down sharply from last year's pace. Indeed, the pace of lending had already fallen substantially in December 1979 (see Statistical Appendix). These preliminary data may overstate the extent of the drop-off, partly because under present market conditions there appears to have been a modest increase in the number of Euro-credits by individual banks and by small groups of banks (i.e., "club loans") where either the borrower or lender or both do not choose to publicize the terms of the transaction.

The prevalent tone in the market is one of shortening maturities, widening spreads over the London interbank offer rate (LIBOR), and increasing front-end fees. For example, in June 1979 the Korean Development Bank borrowed $600 million with a maturity of ten years and a split spread averaging .69% over LIBOR, while in February 1980 the Korean Exchange Bank negotiated a $400 million Euro-loan with an eight-year maturity and a split spread averaging .83%. In another instance, a Spanish borrower, Fuerzas Electricas de Cataluña S.A., raised $130 million in August 1979 with a maturity of ten years and a spread ranging from ¾% to ⅞%, while in February 1980 a $200 million Euro-loan for the same borrower had an eight-year maturity and a spread of ⅞% throughout. Panama entered the markets recently for $150 million with a maturity of eight years and a 1¼% spread throughout, whereas a year ago it raised $135 million with a final maturity of ten years and a split spread averaging .81%. Along with the general tightening of terms, there is also an increasing degree of differentiation among borrowers of varying credit standings in the setting of loan terms.

Some borrowers may be discouraged from seeking funds by sharply higher borrowing costs. These higher costs reflect increased spreads for some borrowers, but far more importantly, they reflect the steep rise in LIBOR rates. By late February 1980 the six-month Euro-dollar offer rate was nearly 17%, whereas early last summer LIBOR was less than 11%. The sharp rise in Euro-dollar rates has added substantially to the debt-servicing burdens of many countries. For example, on the assumption that the interest charges on all of the estimated $150 billion of banks' claims on non-OPEC LDCs at the end of 1979 were based on LIBOR, the annual interest payments by these countries would increase by roughly $1½ billion for each percentage point increase in LIBOR. At current LIBOR rates and an average loan rate spread of more than three-quarters of a percent, non-OPEC LDCs' total interest payments on their bank debt would amount to roughly $27 billion annually. This contrasts sharply with the situation following the 1973-74 oil price increases, when non-OPEC LDC borrowing rose sharply. With

their outstanding bank debt having reached $60 billion at the end of 1975 and with LIBOR averaging only 6% in 1976 coupled with an average loan rate spread of nearly 1¾%, the annual interest cost of servicing this bank debt amounted to less than $5 billion. The recent shortening of maturities will further add to debt-servicing burdens.

With spreads widening and maturities shortening, there have been only $130 million in advance refinancings so far this year compared with nearly $900 million of such refinancings in January-February 1979, and nearly $14 billion during all of last year. Some borrowers also may have stayed away from the markets because of their reluctance to be among the first to accept less favorable terms.

The banks, themselves, have become more cautious in light of adverse changes in international economic and political conditions. Coupled with these adverse changes are the banks' growing concerns about capital adequacy and portfolio concentration. Deteriorating capital/asset ratios and already large country credit exposures are constraining the expansion of banks' loan portfolios. Some banks appear to be holding back on making new lending commitments, a posture which to some extent may be motivated by their anticipation of more attractive lending terms. Indeed, banks need to boost their earnings in order to generate the capital required to support increased lending.

Japanese banks continue to be absent from the medium-term Eurocurrency credit market, in contrast to their active role early last year. While it is anticipated that Japanese banks will be permitted to reenter the Euro-loan market soon, it is widely expected that the Ministry of Finance will set quarterly limits on the amount of net new Euro-lending permitted by each Japanese bank.

International bond market

New issue volume in the international bond market is down for the first two months of this year to $5.9 billion, compared with $8.3 billion in 1979. The decline cut across virtually all major segments of the market (see Table 4).

New Euro-bond issues were valued at $2.0 billion in January-February 1980 versus $2.9 billion last year. Of this total, dollar-denominated offerings fell to $1.1 billion compared with $1.6 billion a year ago. In addition, new issues of mark-denominated Euro-bonds declined to $600 million from $1.1 billion issued in the first two months of 1979.

New foreign bonds issued in domestic markets since the beginning of this year have amounted to $3.9 billion versus $5.4 billion raised in the same two-month period a year ago. New issues of bonds placed in the Swiss market dropped to $1.1 billion during January-February of this year, compared with $1.2 billion in 1979 (excluding a $1.2 billion issue of Carter bonds). Foreign bonds issued in the United States (i.e., Yankee bonds) declined to $800 million this year from $1.1 billion in January-February 1979. There have been three yen bond issues totalling more than $200 million since the beginning of the year. The only exception to the drop in new-issue activity has been that of German mark-denominated foreign bonds, which have maintained their volume levels of a year ago.

The bond markets, both international and domestic, are experiencing volatile swings in terms for new issues as well as in the prices of bonds traded in the secondary market. The current high rate of inflation, combined with growing fears of

further acceleration, has pushed interest rates sharply upward, especially dollar rates. Moreover, short-term rates generally exceed long-term rates. Under these conditions, investors have been exceedingly reluctant to purchase long-term fixed-rate securities. Prospective borrowers hoping to entice investors into the market have resorted to floating rate notes or convertible debenture issues. Indeed, since the beginning of this year there has been only one fixed-rate bond issue in the Euro-dollar market (a $40 million borrowing by the European Coal and Steel Community with an 11.5% coupon and an eight-year maturity) while the remainder have been either floating rate or convertible issues.

Statistical appendix

for key to data in tables see January 1980 issue of World Financial Markets

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
February	98.1	82.2	126.4	69.0	135.6	90.4	54.9	111.9	119.9	166.9	117.4	103.3	101.9	87.0	74.1	74.4
March	97.9	83.8	122.7	70.4	135.5	90.2	54.9	111.4	119.9	166.5	117.2	102.4	102.1	87.1	73.8	74.9
April	98.3	86.0	117.4	72.5	134.5	89.8	55.5	110.5	118.9	164.8	116.5	101.7	102.2	87.5	74.0	76.8
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.2	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
4	98.0	83.9	104.2	74.4	140.2	91.2	54.4	110.6	119.8	167.9	121.6	94.0	101.5	88.0	73.9	75.1
11	97.6	83.9	105.5	75.1	140.1	91.1	54.3	110.4	119.6	167.9	121.6	93.6	101.3	87.8	73.7	75.0
18	97.9	84.3	103.8	76.0	140.0	91.0	54.4	109.6	119.6	167.1	121.7	93.3	101.7	87.9	74.0	75.2
25	97.9	84.6	103.6	76.2	139.7	90.8	54.5	110.3	119.3	165.7	121.7	93.3	102.0	87.9	74.0	75.4
February 1	98.2	84.6	103.6	75.9	139.5	90.8	54.6	110.3	119.2	164.5	121.8	93.1	102.8	88.0	74.1	75.5
8	98.1	84.6	103.2	77.1	139.4	90.6	54.6	110.1	118.9	164.8	121.4	92.7	102.9	87.9	74.0	75.5
15	98.2	84.5	102.2	77.4	139.4	90.6	54.6	110.2	119.2	164.8	121.7	92.8	103.1	87.9	74.0	75.2
22	98.6	85.1	101.0	76.9	139.3	90.5	54.8	110.1	119.3	163.1	122.1	93.1	103.4	88.0	74.4	75.0

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.1	106.7	89.0	96.6	101.2	100.0	92.6	97.9	101.8	110.8	106.1	96.1	99.0	109.0	101.6	105.0
1977	99.8	99.8	94.7	101.5	102.5	96.1	95.5	99.7	103.8	105.2	109.2	97.3	99.7	105.1	91.6	100.7
1978	95.2	92.8	108.8	106.3	103.3	96.7	93.8	99.6	103.6	121.7	109.2	103.5	95.4	96.5	86.9	96.9
1979	95.2	92.8	97.4	118.7	104.2	98.7	93.4	96.9	100.2	116.2	107.8	101.6	90.2	99.2	85.6	109.4
1979																
February	94.6	91.0	106.2	108.7	104.6	98.3	92.3	99.4	103.4	118.2	109.1	103.4	91.7	97.5	85.8	103.0
March	94.3	92.8	103.2	111.2	104.6	98.3	92.4	98.8	102.7	117.6	108.2	103.5	91.7	97.4	85.7	105.0
April	94.7	95.5	98.6	115.6	103.4	98.1	93.7	97.7	101.6	115.7	107.1	101.8	92.1	97.8	85.6	108.8
May	95.7	94.6	98.0	116.5	103.4	98.0	93.7	96.7	100.5	115.2	106.4	99.8	91.7	99.2	85.8	113.2
June	95.9	92.9	97.6	119.8	103.7	98.2	93.1	96.3	99.4	116.8	106.1	98.7	90.4	100.1	85.3	112.3
July	94.1	92.8	97.6	127.5	103.7	98.1	93.1	96.6	98.4	115.6	106.3	100.1	88.2	99.9	85.0	111.9
August	94.4	92.4	97.7	126.6	103.3	98.1	94.2	96.0	98.8	113.8	106.3	101.9	88.4	100.6	85.8	112.5
September	94.4	93.1	95.7	123.4	103.9	98.8	94.6	95.9	98.5	115.3	108.1	103.8	88.9	100.2	85.7	111.6
October	96.4	92.6	92.0	121.2	104.4	99.5	93.8	96.0	98.2	112.2	109.0	103.3	89.8	100.1	86.0	112.2
November	97.5	92.3	86.2	123.3	104.9	100.0	93.2	95.6	97.9	117.9	108.7	100.7	86.8	100.5	85.2	110.8
December	96.1	92.8	88.1	122.4	105.4	100.6	94.3	94.5	98.8	118.6	108.7	96.5	88.0	101.0	85.4	110.0
1980																
January	95.0	93.8	88.7	127.2	104.6	100.6	94.8	94.3	98.4	116.8	109.2	95.9	88.3	100.8	84.8	109.3

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979r		
									Mar	Jun	Sep
Estimated size											
Gross	145	200	305	375	460	565	695	895	895	965	1070
Liabilities to nonbanks	30	35	55	75	80	100	125	170	185	200	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	125	130	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	585	635	n.a.
Net	85	110	160	215	250	310	380	485	500	530	600
Claims on nonbanks	35	45	65	100	115	150	195	245	255	265	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	200	220	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	45	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	74	73	n.a.

a includes unallocated liabilities
b includes unallocated claims
c in European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979							1980
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Euro-dollar:											
overnight	4.63	7.12	10.62	10.37	10.75	11.25	11.75	14.25	12.87	14.00	13.50
7-day fixed	4.75	6.31	10.62	10.50	10.87	11.37	11.87	14.37	13.00	14.00	13.62
one month	5.13	6.87	11.00	10.81	10.94	11.75	13.00	15.06	13.56	14.37	14.00
three months	5.00	7.19	11.69	10.50	11.31	12.12	12.75	15.69	14.00	14.44	14.37
six months	5.38	7.50	12.31	10.50	11.12	12.12	12.75	15.31	13.94	14.44	14.37
twelve months	5.56	7.67	12.00	10.19	10.81	11.69	12.19	14.25	12.87	12.87	13.81
Euro-mark:											
one month	4.62	2.19	3.19	6.12	6.19	7.25	7.19	8.12	9.12	8.50	8.25
three months	4.69	2.50	3.31	6.19	6.50	7.44	7.44	8.94	8.81	8.56	8.37
six months	4.75	2.81	3.69	6.62	6.94	7.62	7.50	8.87	8.62	8.56	8.44
twelve months	4.81	3.06	3.81	6.87	6.94	7.62	7.50	8.62	8.00	8.12	8.56
Euro-Swiss franc:											
one month	0.94	1.31	—.06	0.94	1.31	1.87	1.06	2.94	4.25	5.19	4.75
three months	1.44	1.37	0.00	0.19	1.44	1.00	1.75	4.00	4.50	5.75	5.37
six months	2.12	1.87	0.12	1.81	2.31	2.69	2.00	4.50	4.62	5.87	5.62
twelve months	2.50	2.25	0.62	2.12	2.56	2.94	2.37	4.12	4.50	5.56	5.62
Euro-sterling:											
one month	16.37	6.50	12.00	14.25	14.75	14.37	13.87	14.37	16.00	16.75	18.50
three months	16.12	6.62	12.62	14.00	14.75	14.25	14.06	15.12	16.50	16.75	18.00
six months	14.75	7.12	13.25	13.44	14.12	14.25	14.06	15.00	16.25	16.75	17.00
twelve months	14.50	7.37	13.00	12.62	13.25	13.75	13.50	14.56	15.12	15.25	16.00
Euro-French franc:											
one month	12.37	12.25	10.50	10.75	11.94	11.87	13.12	13.12	13.12	13.87	12.12
three months	12.62	13.25	9.87	11.00	12.06	12.44	13.25	14.00	13.62	14.00	12.81
six months	12.62	14.00	9.87	11.37	12.50	12.94	13.37	14.00	13.62	14.12	13.37
twelve months	12.50	13.25	10.25	11.37	12.25	12.94	13.31	13.87	13.62	13.75	13.56
Euro-yen:											
one month	7.00	0.62	—.69	4.69	6.00	6.87	6.87	5.87	8.50	7.62	7.75
three months	6.62	1.81	0.62	5.75	6.00	7.00	7.31	7.94	8.75	8.31	8.25
six months	6.44	2.75	1.87	6.06	6.37	7.00	7.19	8.06	8.44	8.62	8.25
twelve months	6.25	3.25	2.19	6.12	6.50	7.00	7.00	7.56	7.56	7.94	8.25